Research Title: Monitoring and evaluation practice to discern meaningful change in community-based early childhood development centres

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ABSTRACT

After 23 years of democracy South Africa still faces poor education quality, a class-based education system and poor academic performance. These issues are exacerbated by South Africa's apartheid history and perpetual inequality. Access to quality Early Childhood Education (ECD) is recognised as a solution that can improve education outcomes and overcome poverty and inequality in the country. However, challenges remain in the effective implementation of ECD programmes.

This study seeks to investigate the quality of ECD centres in rural communities in order to gain a deeper understanding of the context in which they operate and be in a better position to inform public funding policies and investment decisions. The main research question asks how the quality of ECD that is delivered through community-based ECD centres can be improved either through the use of public funding other funding sources?

Approaches to monitoring and evaluation (M&E) and impact considerations are examined in community settings. From this, theoretical and practical lessons are drawn to form the basis for analysis of the research findings.

The study adopts a predominantly qualitative approach using interviews with parents and teachers, as well as observations and questionnaires. A total of 40 ECD centres were surveyed and 21 interviews conducted in KwaZulu-Natal (KZN) province in South Africa. The study areas are three rural communities, namely Vulamehlo, Izingolweni and Msinga.

Based on quality definitions explored in this dissertation, the study finds that the need to improve the quality of ECD service delivery remains pertinent and that there is a gap in parental ECD knowledge and practice.

ACKNOWLEDGEMENTS

I will start by thanking my supervisor for showing a keen interest in my work and for his approach to supervision because he has allowed me the space to develop my own ideas but was there to provide guidance and to help focus my work.

I want to extend a huge thank you to my colleagues at the Network Action Group for their support throughout this entire process. They have been gracious with their time and advice. I will mention a few by name; Nondumiso Khumalo, Sane Ncama and Nondumiso Mbatha were particularly instrumental during the data collection phase, playing their role as my research assistants. Maria Liggett was kind to give me advice during the early stages of my research by helping me to flesh out the research questions and provided input for the data collection tools. Brian Liggett, my director, ensured that I had time off to travel in order to collect data in the various study locations and time to work on my research project and has been encouraging in general throughout.

I would also like to thank my friends and family who have been extremely supportive and certain that I would successfully complete my research.

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LIST OF ACRONYMS

CBO	Community Based Organisation
CPE	Confirmatory Participatory Evaluation
DAP	Developmentally Appropriate Practice
DBE	Department of Basic Education
DSD	Department of Social Development
ECD	Early Childhood Development
ELDAs	Early Learning and Development Areas
ELOM	Early Learning Outcomes Measure
GDP	Gross Domestic Product
HR	Human Resource
KZN	KwaZulu Natal
LM	Local Municipality
M&E	Monitoring and Evaluation
MSC	Most Significant Method
NAEYC	National Association for the Education of Young Children
NAG	Network Action Group
NCF	National Curriculum Framework
NELDS	National Early Learning and Development Standard
NGO	Non-governmental Organisation
NQF	National Qualifications Framework
SASSA	South African Social Security Agency
SDG	Sustainable Development Goals
SES	Socio-economic Status
STC	Save The Children
USA	United States of America
VIP	Ventilated Improvement Pit
WHO	World Health Organisation

1. INTRODUCTION

Investment in early childhood development (ECD) is a moral, developmental and economic imperative, especially for disadvantaged communities. In other words, the potential impact of quality ECD on South Africa's most vulnerable groups in society is in its potential ability to break generational cycles of poverty, and its potential effect on the country's long term economic growth and prosperity. An important consideration for investment in ECD, whether through public funding or other sources of funding, is to assess the investment return rate, the service delivery and to improve the delivery of the service. This is accomplished through monitoring and evaluation (M&E). However, monitoring and evaluation is a contested field – on theoretical, methodological and practical grounds. This study seeks to develop M&E practice that is sensitive to context, can discern meaningful change in community-based ECD centres, and so be in a stronger position to inform investment decisions and public funding policies. Through an investigation of community-based ECD centres in three rural districts of KZN, the study serves to prototype monitoring and evaluation approach for action.

This study will begin with a brief overview of scientific and societal reasons why ECD has become an important talking point for governments and global agencies. It will go on to present a short argument for investment into ECD. The structure of the rest of the dissertation is as follows; firstly, the dissertation will explore theoretical approaches to development, the meaning of quality education, and break down quality dimensions specifically for optimal development in the early years according to research and evidence. It also looks at broader explanations for the need to invest in ECD and education, largely based on Amartya Sen's (1999) view on development, freedom and capabilities, going beyond the traditional economic view of human capital development and savings on future country spending. In this way the study approaches ECD in isolation from a micro level, but also as one part of a whole system. The dissertation will discuss social constructs and other factors that may impact child outcomes and will examine community organisations as entities and explore their uniqueness with reference to literature. The dissertation will examine M&E practice from a theoretical background as well as practice within community based interventions. Central to the discussion is enquiry into the functioning of ECD centres in rural communities bringing to the surface perspectives of the key role players and circumstances surrounding them. This will include the ECD teacher, the parent, home environment and ECD centre environment. The outcomes of

this discussion will inform the prototype for an M&E framework as well as direct possible areas for future research.

1.1 Research Area and Problem

The case for investment in ECD centres on four main points. Firstly, a human rights perspective, which argues that it is a child's human right to receive quality education and care in order to reach their full potential. Secondly, from an economic viewpoint, it costs governments less in the long run to invest appropriately in activities like early education to boost economic growth in the future and reduce poverty levels. Thirdly, from a developmental point of view, researchers argue that there are critical periods in a child's development that can impede or nourish brain development, social development and can affect success later in adolescence and adulthood. Lastly, morally, lower income countries and disadvantages groups and communities have had to bear the burden of poor quality education. Therefore, the imperative to improve the lives of children and communities is one that governments should pursue earnestly.

Sameroff (2010) suggests that the ultimate desire of philosophers and scientists is to have a population of adults who are productive and are good citizens. In other words, adults who contribute positively to society by adhering to civil law, contributing to the labour force and living moral family lives (Sameroff, 2010). However, our societies continuously produce adults who do not exhibit characteristics of good citizens (Sameroff, 2010). Sameroff (2010) argues that the responsiveness of scientists, development researchers, teachers and policy makers to the education of children is fundamentally to make children better adults. A more recent addition to human development theory is the use of happiness as an index for which a society aspires to obtain. Drawing from experts in multiple disciplines, Helliwell, Layard, & Sachs (2016) use the following combination of variables to measure happiness, including "GDP per capita, healthy years of life expectancy, social support (as measured by having someone to count on in times of trouble), trust (as measured by a perceived absence of corruption in government and business), perceived freedom to make life decisions, and generosity (as measured by recent donations)" (p.4). Therefore, along with producing a high functioning and moral society, the desire is also to have a happy society.

Lake (2011, p. 1277) stated that "the imperative for universal early childhood development is clear: every child has the right to develop her or his fullest potential and to contribute fully to society". Research continues to demonstrate the importance of pre and postnatal care, as well as investment in ECD for a child's holistic wellbeing, better schooling outcomes and to put them in a position to reach their full potential in adult life (Lake, 2011). Furthermore, early investment is a cost effective methodology to contribute towards a country's economic growth in the long run (Lake, 2011). However, as with many other things, infectious diseases as well as inadequacies in nutrition and cognitive stimulation in early childhood, tend to be experienced by the poorest in society (Lake, 2011). Some low and middle income countries have used cash transfer programs (social grant equivalent in South Africa) to target poverty and encourage parental involvement in the child's health and education through conditional cash transfers (Engle et al., 2011). For example, in an effort to improve health and educational outcomes, cash payments are made on condition that a parent sends their child for regular check-ups and enrol them in an ECD program (Engle et al., 2011). Lake (2011) suggests that further investment in this sector requires better coordination, and should be incorporated into existing key areas such as health, nutrition, education, water and sanitation, and protection.

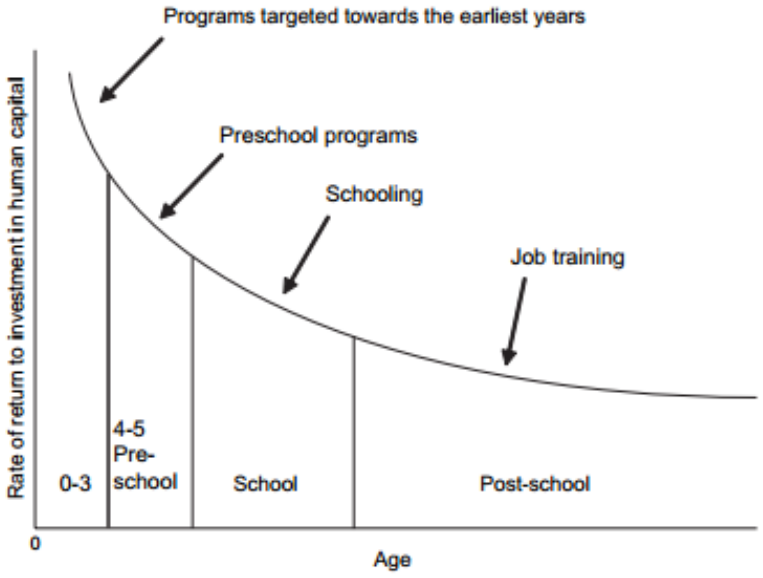

Figure 1: Rate of return to investment in human capital

Source: Skills, schools and synapses (Heckman, 2008, p.311)

Heckman (2011) adopts a purely economic stance to argue for more equality in the provision of early education in the view that this will increase economic productivity and efficiency. Unlike most policies that appear to be a trade-off between what is fair for what makes more economic sense, directing investment towards disadvantaged children and the communities in

which they live, in particular early childhood investment, promotes both equity and productivity (Heckman, 2011). Heckman (2011) stresses the importance of making sound investment decisions based on data; investments that produce the best results for human capital development. Figure 1 demonstrates the trajectory of returns to investments made at each stage of life which is that investment made in early life, between ages 0 and 3 yield the highest returns. In other words, from birth each stage of life yields diminishing return rates on each dollar investment (Heckman, 2008). In addition to this, those who gain a skills advantage from an early age generally find it easier to learn new competencies and skills later on in life which breeds more efficiency and productivity (Heckman, 2008).

South Africa has developed a national curriculum framework (NCF) for children 0 – 4 years, built upon National Early Learning and Development Standards (NELDS) which were developed in 2009 (Department of Basic Education, 2015). However, this framework has not reached every corner of South Africa by way of training and equipping all ECD teachers with the tools necessary to run a successful program. NELDS is a policy initiative response to the shortcomings evident in ECD in South Africa that will serve to benefit parents, ECD teachers, training agents and policy makers (Department of Basic Education, 2009). It provides a skeleton for a form of programs and assessments based on indicators, developmentally appropriate practice (DAP) and desired results (DBE, 2009). The key to its effectiveness lies in the implementation of these standards. Researchers suggest that although policies and interventions have been designed specifically to encourage and support change in rural education, there has been little progress in the education system or improvement of literacy levels in South Africa (Mohangi, Krog, Stephens, & Nel, 2016). The DBE acknowledges the complexities surrounding early childhood services' delivery. One variable which adds to the complexity of ECD delivery is that it rests on a number of government departments and therefore requires coordination and cooperation from all branches in order to be carried out effectively (DBE, 2009). Building upon the admission of a multidimensional nature of education in rural South Africa, some argue for more contextual research that draws from innate resources and knowledge of the community (Mohangi et al., 2016).

A vital component to tackling poverty and unlocking potential economic growth in the long run is to tap into inequalities from an early age and prevent them from accumulating (Dornan & Pells, 2015). Improving access to ECD is one thing, but access does not ensure quality

(UNESCO, 2013). How an individual starts off in early childhood still plays a significant role in their capabilities and how he or she develops in the future (Dornan & Pells, 2015). If education is seen as a human right, which has been widely accepted, then the inability to provide quality education is a violation of that right and therefore constrains or dampens economic development and manifests as countries trapped in cycles of low economic growth rates, little opportunities for employment and weakened societal links (UNESCO, 2013). Inquiry into quality of learning is not a new occurrence; however, what has escalated rapidly is the extent to which education systems are failing individuals, communities and countries (UNESCO, 2013).

New scientific research in the area of early development suggests that adaptions to surroundings, that is, changes in genetic expression, immunological, psychological and physiological changes, occur from the point of conception and will continue to affect development throughout a person's life. Particular emphasis is placed on 0-3 years age group (Daelmans et al., 2016). Brain development in a child's first few years is rapid and can be altered by the quality of the environment (Grantham-Mcgregor et al., 2007). According to Schunk (2012), brain development is influenced by five variables, namely genetics, the environment, nutrition, steroids and teratogens. For the brain to develop well it needs environmental stimulation. Stimulation can occur and is valuable during an individual's entire life span, but is critical at certain stages of development (Schunk, 2012). Stimulation can begin before the child is born. For example, a mother that sings and talks to their child while it is in the womb can help to prepare the brain for development because such activity builds synapses (Schunk, 2012). "Brain development lags when experiences are missing or minimal" (Schunk, 2012, p.51).

Poor nutrition can have a major impact on brain development depending on when it occurs. According to Schunk (2012), poor prenatal nutrition that occurs between the fourth and seventh month is irreversible because this is when the majority of brain cells develop. However, poor nutrition that occurs at a later stage can be reversed because it affects the rate at which cells grow in size (Schunk, 2012). This can be rectified by improving diet. Data from longitudinal studies in low and middle income countries shows that children who do not grow fully in the first 2 years of their lives can result in reduced educational attainment and reduced earnings and

also adversely affected adult health (Daelmans et al., 2016). This also feeds into generational cycles of poverty and lost human capital.

By the time a child reaches 2 years of age, the number of synapses it develops are equivalent to that of an adult's and the time a child reaches 3 years of age, the number of synapses in the brain have far exceeded those of an adult (Schunk, 2012). By the age of 18 an individual loses approximately half of the synapses that were developed during infancy (Schunk, 2012). Although Schunk (2012) agrees that the first two years of a child are important, he argues against the claim that if particular experiences do not happen then a child's development is permanently damaged and cannot be repaired. He suggests that there are crucial periods of brain development for language development, vision, emotional development, and sensory motor and auditory development. Additionally, research evidence suggests that cognitive skills of children in South Africa by the of grade one was a predictor for education attainment in later schooling years (Grantham-Mcgregor et al., 2007)

According to research, poor development outcomes are also affected by variables such as low maternal education and physical harm to the child. The latest Lancet Series (2016), argues that critical to mitigating against these risks of low developmental outcomes are nurturing interactions between children and trusted adults (Daelmans et al., 2016). Country specific percentage estimates for South Africa (SA) show that in 2010, 28% of 5.5million children under 5 years of age were at risk of poor development, using an extreme poverty level of $1.25 per day (Lu, Black, & Richter, 2016). If the poverty level is adjusted to $2 per day, then 41% of SA's child population is at risk of poor development (Lu et al., 2016).

Whilst there is strong emphasis on scientific research that helps us perfect the timing of interventions based on understanding of brain development and how population groups respond to stress, equal in significance is community practice, which provides insights into what works, where and why (Shonkoff, Radner, & Foote, 2016). "Breakthrough outcomes will not be achieved by universally applicable solutions identified in single studies. They will require an iterative process of discovery fuelled by vigorous on-the-ground adaption, continuous dialogue at the community, national, and global levels, and broadly accessible platforms for shared learning across diverse domains of thinking and doing" (Shonkoff et al., 2016, p.2).

1.2 Research Questions and Scope

The overarching research questions addressed in this dissertation seek to explore how the quality of ECD that is delivered through community-based ECD centres can be improved either through the use of public funding for community-based centres or other funding sources. This will be attempted through the development of a prototype M&E framework that is appropriate for the context in which community-based ECD centres operate. Therefore, the aim of the study is to better understand the context of quality ECD in order to inform public funding strategies and investment decisions. Underlying the research question are several key objectives, namely;

1. To investigate the impact of elementary and latent conditions on quality ECD, including structural factors, human resource (HR) factors (salaries, role responsibilities, job training, working environment and management practice), vital components of ECD programmes, and the role of parents.

2. To examine the correlation between public funding and quality ECD.

3. To explore ways in which public funding can be utilised to improve quality ECD, referring to anything from distribution of funds, to an M&E tool.

The outcome of these objectives will reveal the status of the sampled data and put some meaning behind quantitative data and discover how to perform M&E with a purpose for action.

Programme evaluation is necessary for decision makers, be it policy makers, tax payers or donors, to discern whether a programme is worth continuing, whether it is producing desired results or whether it should be revised (Rossi, Freeman, & Lipsey, 1999). Likewise, government investment in ECD programmes at the community level should be under scrutiny since it is a social and educational intervention. Rossi et al. (1999) emphasise the evaluation of human centres social programmes, i.e. in testing and roll out phases, because limited resource investment in developed and developing countries ought to yield proportional social benefits to qualify such investments. The distinction between M&E lies within the frequency of action and in the purpose of the activity (Mouton, 2007). Monitoring describes how things are and can be, a routine task in interventions or programmes whilst evaluation may be off activity, is more in-depth and forms a conclusion about programme effectiveness, sustainability and success (Mouton, 2007). Rigorous M&E is necessary to ensure that the prospective benefits of interventions are being realised and to help improve the design of future interventions

(Lamhauge, Lanzi, & Agrawala, 2012, p.3). Literature expanded in the field of M&E due to criticisms that approaches were inadequate and were not very useful or decision makers (Mouton, 2007). Participatory M&E seeks to provide practical procedures and techniques to improve decision making in organisations and create efficiency and more effectiveness (Nzewi, 2012). Participatory M&E can also be used to bring about change or transformation in governance (Nzewi, 2012). It is important for social change and raises accountability for decision makers and transparency in decision making processes (Nzewi, 2012).

Audit data findings from 2014 suggest that an ECD centre that meets Department of Social Development norms and standards and receives a subsidy from the department, is in a better position to meet a child's developmental needs (Department of Social Development, 2014). In addition to this, the report suggests that a centre that has a registration status (i.e. full registration, conditional registration or unregistered) serves as an indicator to ascertaining the likelihood of the quality of the programme provided (DSD, 2014). Based on the above, this study seeks to explore the following research questions;

1. Is there a difference in program quality between an ECD centre that is funded by the Department of Social Development and an ECD centre that is unfunded?
2. To what extent is the role played by parents in the ECD process?

This study will exclude assessments of child outcomes. The scope of the research has been limited to the parameters defined above due to resources such as time, finances and human capacity. A more comprehensive study might utilise an assessment instrument to test child outcomes, such as the early learning outcomes measure (ELOM) that is currently being developed against early learning and development standards, and adapted by Innovation Edge to suit a South African context (Innovation Edge, 2014). A study of this nature might adopt a longitudinal study design that follows a given sample of children over their entire pre-school career. The child outcomes may be tested against structural and process elements of a given sample of centres. These, though, are opportunities for future research.

1.3 Research Assumptions

The assumptions that were made for this study include assumptions about the ECD teachers, the parents, ECD centre, its environment as well as the programme run by the ECD centre. The

main assumption is that community based ECD centres are different to privately owned, urban based or for-profit centres. They are different because they operate in a different context and deal with different challenges and community level dynamics. This assumption is supported by literature and will be elaborated on under Chapter 2.

For all respondents, it was assumed that they would be available and willing to participate in the study, work flexibility for parents. The assumption made for participation stood true since all centres that were approached responded positively to being part of the study. However, although most individuals and ECD centres were available to be interviewed and surveyed, a number of times ECD centres were closed on the day they were approached. The research methodology does not involve notifying the ECD centre beforehand that they have been identified as a potential research participant. This approach was chosen in order to get a true representation (or as true as is possible) of how the program normally runs. Additionally, the study set out to interview ten parents, but due to issues of availability only nine parents were interviewed by the end of the study.

Assumptions were also made that it would be relatively easy to record interviews with parents and teachers, however this was not the case; quite a number of parents were uncomfortable with a recording device, teachers were more at ease. Moreover, due to limited space it was often impossible to find a quiet enough space away from the main classroom in which to conduct the interview. Therefore, not all interviews were recorded, but many of the teacher and parent interviews were conducted with a research assistant present or all responses were adequately captured during the interview.

Assumptions around ECD teachers included; the number of teachers who have received ECD training is not consistent with standards set by Department of Social Development and that ECD teachers have a genuine love for the children they service. This assumption was consistent with results from data collection, that generally ECD teachers and supervisors (or principal) were not trained to the minimum standards required by Department of Social Development, although efforts were being made to receive training where possible. According to the Department of Social Development, the minimum training requirements for an ECD teachers is a National Qualifications Framework (NQF) Level 1 Basic Certificate in ECD, whereas

supervisors are recommended to have a National Certificate in ECD at NQF Level 4 as a minimum requirement as well as management training and skills. In addition to this, teachers should receive continuous training in ECD and working with children with special needs (DSD, 2006).

Due to the fact that ECD centre committee members are not stationed at ECD centres, and because they do not always live within a close proximity to the crèche, an assumption was made to accept consent from the ECD centre's supervisor. For a significant number of centres, consent was given by the supervisor with the official centre stamp.

1.4 Research Ethics

Ethical clearance for this study has been given. Since the study does not involve direct contact with children in terms of conducting any form of assessment on them, ethical consideration like obtaining permission concerning this vulnerable group need not be applied i.e. receiving consent from the parents of children attending the ECD centres that form part of the study. Respondents received a clear explanation that participation in the study was on a purely voluntary basis. It was also explained to respondents that all information that was collected about them from their interviews, the ECD centre profile questionnaire and observations would remain confidential. That is, no identifiable information would be shared in the write up of the study and that the data would be kept responsibly to protect their responses. Furthermore, the study does not require any identifiable data from the respondents but in some cases respondents signed their names on the consent form instead of their signature.

Therefore, the main ethical considerations for this research included the privacy and confidentiality of the respondents, as well as the consent of respondents and ECD centres. Interviews with parents and ECD teachers were carried out in as separate a space as was possible to allow freedom of expression, and to allow the respondent to be at ease, give truthful responses and to feel respected.

1.5 Definition of terms

For the purposes of this dissertation, state funding refers to the per child, per day subsidy that is issued by the Department of Social Development. The subsidy is granted based on a needs assessment (means test) and goes towards groceries, teacher salaries and maintenance and according to the Children's Act of 2005 (Department of Social Development, 2005): "The funding of partial care facilities must be prioritised;

a) In communities where families lack the means of providing proper shelter, food and other basic necessities of life to their children; and
b) To make the facilities accessible to children with disabilities"

Additionally, stipulated in the Children's Act of 2005 is that all ECD centres, that is, any person who takes care of six or more children that do not belong to them, on a regular basis for a specific period of time, ought to be registered with the Department of Social Development as a partial care facility (DSD, 2005).

A means test is a measure utilised by the South African Social Security Agency (SASSA) to evaluate "the income and assets of the person applying for social assistance in order to determine whether the person's means are below a stipulated amount. The means test is to determine if a person qualifies, as grants are meant for those who most need it." (DSD, 2014, p.401).

A community based organisation (CBO) is usually a membership driven enterprise that consists of a similar group of people with shared ambitions and live in the same community or village (Luginaah & Maticka-tyndale, 2004). CBOs differ from other Non-Government Organisations (NGOs) because they pursue the interests and strive to meet the needs of its community, the community from which the organisation was birthed (Luginaah & Maticka-tyndale, 2004). The study will exclude any form of assessment on children attending the ECD centre in the form of school readiness testing or assessment of development outcomes.

Structural quality is usually measured in terms of the ECD centre building structure, it's resource, staff qualifications and teacher to child ratios (Ishimine & Tayler, 2014). Whilst process quality is measured through evaluation of relationships and interactions that exist

between ECD teachers and children, ECD teachers and parents and amongst the children. Process features have much to do with how the child experiences life within the ECD centre and the ethos created in the centre (Ishimine & Tayler, 2014).

2. LITERATURE REVIEW

This chapter will introduce the concepts of development, mostly for children in their early years, to understand when, how and why investment is important for early childhood development (ECD) from both a scientific and a social point of view. It will build upon the previous chapter which laid the argument for investment into ECD. The chapter also reviews risk factors associated with ECD, including poverty and biological, socio-cultural and psychosocial risk factors. Lastly, the chapter will review definitions of quality in ECD and arguments for improving the quality of ECD and education.

2.1 Approaches to Early Childhood Development

Development is a complex and diverse concept, and as such, there is not one explanation for it. Instead, approaches to development are also varied, where one will explain a certain part of development and a different approach will explain another part of development. ECD theorists look to improve motor development, cognitive development, and socio-cognitive development (Johnson, Slater, & Hocking, 2011).

The most obvious sign of development in a child's early years is motor development. This includes milestones such as learning to walk, using both hands and crawling. Motor development is explained by maturational theories and systems dynamic theories (Johnson et al., 2011). According to Gesell (1940), the maturation theory suggests that each individual develops at their own pace regardless of the environment and experiences in which one might find themselves (Johnson et al., 2011). This is because motor development is dependent upon the central nervous system and muscular development. However, research evidence suggests that motor training can enhance and accelerate the development of motor skills (Johnson et al., 2011). To supplement this gap dynamic systems theory suggests that children develop their motor skills as a result of exchanges between environmental forces that either help or hinder development, and innate capabilities in the biological system and the nervous system (Johnson et al., 2011).

Johnson et al. (2011) explored cognitive development from the viewpoint of one of the most influential writers in the area of development psychology. According to Piaget's theory of

development, children are the authors of their own development and behaviour as opposed to being passive recipients of external forces (Johnson et al., 2011). Children make sense of, or construct their worlds through cognitive adaptions as do all other living organisms in adapting to their environments. The implications for early childhood, apart from the actual learning and development stages that are reached during this time, it is also the view of Piaget that each successive development stage builds on achievements from previous stages (Johnson et al., 2011). Scarr (1992) argues that create their own realities based on their experiences, opportunities and environment, and that these constructed realities are the reason for disparities in child and adult outcomes. In contrast, Vygotsky, a major author in socio-cognitive development argued that cognitive development relies fundamentally on social interactions between children and adults. Adults play a role in filling a gap in understanding, a "zone of proximal development" that a child cannot reach on their own, but with the help and guidance they can resolve these problems and grasp ideas (Johnson et al., 2011).

Two additional theories for cognitive development are information processing approaches and connectionism (Johnson et al., 2011). Information processing approaches rely on three functioning elements of an individual's mind; firstly, information is received from the environment and encoded in some form. Secondly, a variety of internal processes, such as memory storage, problem- solving strategies, or relating new information to existing knowledge, act on the information and transform it. Finally, the individual is able to change their cognitive structures in order to act on the information" (Johnson et al., 2011, p.47). This means that the development process is characterised by children's recognition of themselves in the world, the extent of their abilities and of their limitations. On the other hand, connectionism is a method of generating knowledge about development and how learning occurs because it uses computers to simulate real life experiences and "how the physiological processes taking place in the brain result in a given behaviour, or in changes of behaviour" (Johnson et al., 2011, p.48).

"Social cognitive theory has become a fundamental resource in clinical, educational, social, developmental, health and personality psychology" (Luszczynska & Schwarzer, 2005, p.128). Bandura developed social cognitive theory (SCT) to explain why and how people develop or learn a behaviour, or what motivates individuals to alter their behaviour (Luszczynska & Schwarzer, 2005). From this perspective, people form behaviours as a result of their

environments, but they also play an active role in determining their behaviour (Luszczynska & Schwarzer, 2005). Schunk (2012) described the learning process as a dynamic interaction between the individual and environmental factors on behaviour. There are two major components of SCT; self-efficacy and outcomes expectations. The SCT asserts that people are more willing to change their behaviour if they feel that they have the power to change their circumstances. The assumption here is that people wish to have agency over their own lives (Schunk, 2012). Perceived control, or self-efficacy as a determinant of behaviour, means that people with low self-efficacy tend to feel less in control of their actions, environment and future (Luszczynska & Schwarzer, 2005). In contrast, people with high self-efficacy tend to function better in society (Luszczynska & Schwarzer, 2005). Outcomes expectancies are what people believe will occur as a result of their actions. Self-efficacy is important because it is seen as a key influencing factor for parent beliefs and, ultimately, for the relationship between parents and children alongside income and the parents' education level (Turner & Johnson, 2003). Self-efficacy has the ability to alter parent behaviour by impacting on their level of perseverance and general feelings about themselves (Turner & Johnson, 2003).

Objective explanations for human behaviour and development, which build upon ideas of classical conditioning argue that some behaviours are learned (Johnson et al., 2011). Therefore, by using certain stimuli this can result in particular behaviours being caused. The law of effects argues that that the likelihood of a behaviour or action occurring is controlled externally by rewards and punishment; suggesting that punishment reduces the chance of a particular behaviour and reward raises it's likelihood (Johnson et al., 2011). At one extreme, behaviourisms suggests that humans simply react to their environments. The environment acts as the stimulus and the result of this stimulus is a certain behaviour, which implies that there is no validity in studying the brain. Therefore, contrary to Piaget's view of development, behaviourists view children as passive recipients of external stimuli in their social and physical environment.

Ethological approaches to child development are founded upon theories of evolution; genes that produce advantages for a living organism tend to reproduce themselves and have a better chance of survival, including behaviours. Whereas, genes that are disadvantageous will appear less often (Johnson et al., 2011). Ethological approaches imply that children will seek out a parent for "attachment". The parent then assumes the role to "feed, give warmth, protect from

predators, and generally attend to the offspring" (Johnson et al., 2011, p.52). Attachment theory supports the understanding of emotional development in children (Johnson et al., 2011). Attachment theory argues that infants seek out secure linkages and relationships with caregivers so that they can: provide emotional and physical support, provide a safe environment in which the child can explore, learn and grow, and maintain closeness with the infant for its enjoyment and comfort (Mikulincer, Shaver, & Pereg, 2003). Ethological theory has been developed further, suggesting that there are sensitive, as opposed to critical periods in a child's life where behaviours are learnt and are developed in conducive environments (Johnson et al., 2011).

The following section of the literature review discusses risk factors associated with ECD. Focus is given to exploring further how poverty, nutritional deficiencies, other biological and psychological factors may hinder child development. The research evidence focuses particularly on results from developing countries.

2.2 Risk Factors Associated with Early Childhood Development

Risk factors are factors that can have undesired or adverse effects on the ability of a child's brain to development and function, and consequently on behaviour (Walker et al., 2007). According to Owens and Shaw (2003), in order for a variable to be considered a risk factor it must have a significant relationship and precede a negative outcome. Biological risk factors include exposure to infectious diseases, insufficient nutrients, toxins in the environment, and how well the foetus grows and develops as well as postpartum growth (Walker et al., 2007). Psychosocial risk factors include parental practices, maternal depression (their emotional state) and the amount of violence that the family or child is exposed to (Walker et al., 2007). Grantham-mcgregor et al. (2007) argue that preschool aged children globally have similar growth potentials. However, risk factors have the ability to influence a child's brain before they are born through maternal stress as she deals with her external factors in her environment (Walker et al., 2011).

Poverty conditions, as well as social and cultural context, increase a child's potential exposure to risk factors that may impede development and a child's ability to realise their full potential (Walker et al., 2007). Poverty is seen as the ultimate driver of poor early development (Republic

of South Africa, 2015). Poverty is linked with a number of factors including issues of sanitation and hygiene as well as inadequate food (Grantham-mcgregor et al., 2007). Furthermore, children frequently experience more than one risk factor at any given time (Walker et al., 2007). Early childhood poverty, a description of children from birth up to the age of 5 living in a household that brings in an income that falls below a specified threshold, is associated with negative outcomes in physical development, academic achievement and generally poorer performance in school (Owens & Shaw, 2003).

Socio-cultural aspects of a community context may raise the likelihood of exposure to risk factors include limited access to quality service, gender inequality and low parent (mother) education level (Walker et al., 2007). Consequences of impairments in ECD are likely to be inter-generational. Walker et al. (2007) identified four of these risk factors for developing countries including stunted growth, lack of sufficient cognitive stimulation, and iodine and iron deficiencies (nutritional deficiencies) which they argue that without receiving urgent attention would result in continuously undesired and unfavourable child outcomes. In this case, Walker et al. (2007) limit their analysis of risk factors to those that can be changed or improved by public policy or intervention programmes. Walker et al. (2007) are particularly interested in how risk factors impact children's readiness for school.

Malnutrition can potentially result in permanent damage on child development and have lasting effects (RSA, 2015). Developing countries similar to South Africa, such as Brazil and Jamaica, research has shown that nutritional deficiencies (with intrauterine growth restriction) result in children being born with low birth weights that have adverse effects on development (Walker et al., 2007). For instance, at one year of age, children in Brazil who had low birth weights experienced lower levels of development, considered in this case as all interconnected "domains of sensori-motor, cognitive-language and social-emotional function" (Walker et al., 2007, p.145). In Jamaica, children born with low birth weights achieved lower cognitive scores when assessed at the ages of two and three. In these two countries children were found to be "less active, vocal, happy, or cooperative, and in Brazil more inhibited, than infants with normal birthweight" (Walker et al., 2007, p.145). In China, children with low birth weights were reported to be more vulnerable to developing behavioural issues in teenage years (Walker et al., 2007). Furthermore, keeping all other variables constant, stunting caused by prolonged

under nutrition by the age of two or three years was linked with higher school dropout rates, academic achievement and cognitive difficulties at a later stage (Walker et al., 2007).

Other biological risk factors include infectious diseases and environmental exposures. Of particular relevance in South Africa is the impact on child development that may be caused by Human Immunodeficiency Virus (HIV) or Acquired Immuno Deficiency Syndrome (AIDS). It is estimated that there are a minimum of two million children under the age of fourteen living with HIV/AIDS (Walker et al., 2007). Walker et al. (2007) argue that the increased risk to development as a result of the effects that arise from infection of HIV tend to be seen in language developments. More than this however, is the number of children who are being cared for by parents or guardians who have HIV/AIDS. The effects of this on child development may be as a result of psychosocial factors or decreased resources (Walker et al., 2007).

Psychosocial risk factors include parenting and contextual factors and their impact on child development (Walker et al., 2007). Research evidence from developed countries suggests that the ability of a parent or guardian to provide opportunities for cognitive stimulation, the responsiveness and sensitivity of parents or guardians to child cues and behaviour, as well as the caregiver effect, that is, "emotional warmth or rejection of child" all have a positive effect on children's emotional, social and cognitive development (Walker et al., 2007, p.152). Although sociocultural factors and poverty influences these psychosocial elements, similar trends can still be seen in developing countries. Evidence from South Africa (and similar countries) suggests that sensitivity from parents (mothers) displayed a positive correlation with attachment at infancy. Sensitivity and responsiveness of mothers was however, linked with better cognitive ability during infancy and less behavioural issues for children in preschool (Walker et al., 2007). Evidence from maternal interventions in South Africa and Brazil, intended to improve parental knowledge about early childhood development and to make mothers aware of infant abilities, showed that in the short run there was an improvement in parent (mother) behaviour (Walker et al., 2007).

A significant threat to ECD is maternal depression because it influences responsive parenting and is heightened other psychosocial risk factors (RSA, 2015). Maternal depression is associated with child rearing practices. According to research in South Africa, India and

Barbados, children who are living in a household with a depressed mother were more likely to experience behavioural issues as well as lower levels of cognitive functioning (Walker et al., 2007). Although the majority of research on exposure to violence is conducted with older children, there is some research to suggest that children who are subjected to community violence showed more signs of post-traumatic stress disorder, displayed more aggressive behaviour, were more likely to have problems and to be depressed (Walker et al., 2007). Both maternal depression and exposure to violence are factors that underline the context in which children develop in their early years.

2.3 Defining Quality

In the previous chapter the argument for improving early childhood development (ECD) was examined in-depth from an economic perspective. The discussion will now consider the moral and argument for ECD and how improving ECD is considered an act of social justice. Additionally, the review will involve an attempt to understand and interrogate the definition of quality in ECD in terms of process and structural quality, the quality standards that relate to ECD, and make sense of challenges in defining quality.

2.3.1 Education and Achievement

Ladson-Billings (2006) argues that there is a more important need to rectify this so-called achievement gap that exists between children from different racial and socioeconomic backgrounds, and that is an education debt that has accumulated over time based on moral, historical, socio-political and economic grounds. Therefore, rather than looking at investment in early childhood from a purely economic standpoint, Ladson-Billings (2006) argues that there is a moral obligation to invest in disadvantaged communities. Primary school test scores of children in the USA appear to follow the same trends of race as those in South Africa with black children (or African American) consistently scoring lower than white children (Ladson-Billings, 2006; Badat & Yusuf, 2014). Ladson-Billings (2006) suggests that continued research in support of family environment, socioeconomic status (SES), the type of school, teachers, individual beliefs and self-efficacy for this achievement gap distracts policy makers and decision makers from tackling the real and persistent problems. In other words, although a significant amount of research has gone into reducing the achievement gap, the solutions to this problem are scarce. A reason for this may be because the achievement gap is only a surface

problem but the underlying root cause is accumulated debt against disadvantaged communities that has developed into numerous other social problems that cost the public even more (Ladson-Billings, 2006).

Historically, rules of segregation for schooling, how much schooling to receive, resource allocation and quality of those resources kept those who were not the "right" race at a disadvantage (Ladson-Billings, 2006). Economically, there were significant disparities in funding directed to schools where predominantly white schools received more funds (Ladson-Billings, 2006). The economic argument also relates to income earned which has improved over time but does not explain the effect of these income differences between the races, but ultimately it is the wealth gap that displays a truer representation of accumulated debt. For example, in developed countries like the USA the wealth gap between blacks and whites is much larger than the income (Altonji & Doraszelski, 2003). Similarly, in less developed countries like South Africa the wealth gap is visible along racial lines (Keeton, 2014). Wealth goes beyond income because it provides access to certain political, social and financial resources and provides a safety net in times of little or no income (Altonji & Doraszelski, 2003). Additionally, Altonji and Doraszelski (2003) argue that the wealth gap is exacerbated due to the tendency of social networks to be formed in racial groups. Ladson-Billings (2006) likens the education debt to wealth differences. The argument for a socio-political debt is supported by research evidence that suggests that non-white families feel less of a part of the democratic processes and are excluded from playing their role as an active citizen and powerless in ensuring quality education in schools (Ladson-Billings, 2006). Morally, Robinson (2000) in Ladson-Billings (2006, p.8) stresses that,

"No nation can enslave a race of people for hundreds of years, set them free bedraggled and penniless, pit them, without assistance in a hostile environment, against privileged victimizers, and then reasonably expect the gap between the heirs of the two groups to narrow. Lines, begun parallel and left alone, can never touch (p74)."

2.3.2 Education, Social Justice and Capabilities

Tikly and Barrett (2011) suggest that looking at education from the perspective of social justice may be a useful approach to traditional approaches in re-imagining quality and how to evaluate it. The two main approaches that lead discussions on the quality of education focus on human

capital and human rights. Vegas and Petrow (as cited in Tikly and Barrett, 2011), argued that increased access of educational opportunities has not made much of a difference to high income inequality, to poverty levels or under-development. Moreover, according to Hanushek and Wößmann (as cited in Tikly & Barrett, 2011), for quality education to have an impact on income, the labour market and the macroeconomic environment must be conducive and ready to translate the human capital into economic growth. Furthermore, countries with high inequality in the education sector have time and again shown to have slow economic growth rates. On the other hand, human rights approaches view education as means of developing oneself from a social, political and economic perspective (Tikly & Barrett, 2011). Teaching styles under this approach will favour learner-centred techniques and democratic processes within the school (Tikly & Barrett, 2011). Two problems with the human capital approach to education are that it is purely economic, meaning that these approaches only see the benefit of education as productive output and increased (Robeyns, 2006). Secondly, the value of education is only recognised to the extent to which the knowledge and skills gained in education furthers economic activity and productivity (Robeyns, 2006). The human rights approach serves not to replace the human capital approach, but rather to broaden the value of education and recognise that there is inherent importance in it (Robeyns, 2006).

Tikly and Barrett (2011) argue that questions about the quality of education are political and that, because of this, defining the most desirable outcomes and processes should be up for debate. They base their approach to education quality on work by Amartya Sen and Nancy Fraser;

"According to this radical-democratic interpretation of the principle of equal moral worth, justice requires social arrangements that permit all to participate as peers in social life. Overcoming injustice means dismantling institutionalized obstacles that prevent some people from participating on a par with others as full partners in social interaction" (Fraser, 2008, p.16).

"In analysing social justice, there is a strong case for judging individual advantage in terms of the capabilities that a person has, that is, the substantive freedoms he or she enjoys to lead the kind of life he or she has reason to value. In this perspective, poverty must be seen as a deprivation of basic capabilities rather than merely lowness of incomes which is the standard criterion for the identification of poverty" (Sen, 1999, p.87).

Sen (1999) argued that freedoms are a fundamental component of the development process because of evaluative and effective reasons. When evaluating a country's progress, the extent to which a nation has enhanced individual freedoms is a sign of how far along they are in the process of development; freedom to feed, clothe and shelter themselves, freedom to sanitation, health care, education and other social services (Sen, 1999). The ability of individuals to exercise agency in their freedoms and inherent characteristic of certain freedoms to reinforce each other also drives development (Sen, 1999).

Similarly, Mahbub ul Haq (1995) based his view of development on the premise that it is about expanding people's choices; a human centred approach to development (Alkire & Deneulin, 2009). He argued that development should create an environment that enables individuals to lead healthy and long lives, with creative freedom. Sen (1999) spoke of five different types of freedoms (or rights) that each individual in society should be able to enjoy; these consist of political freedoms, economic facilities, social opportunities, transparency guarantees and protective security. A country that fails to break down barriers in these five areas slows down the development process since individuals cannot pursue the freedoms of their own choosing (Sen, 1999).

Sen (2005) describes a capability as "the opportunity to achieve valuable combinations of human functionings — what a person is able to do or be" (p.153). In this statement he also defines the nature of functioning's, that is "what a person is able to do or be" (Sen, 2005, p.153). For Sen, unlike other authors who argue for set of fundamental and universal capabilities, capabilities are contextual which leaves room for agency within this approach (Tikly & Barrett, 2011). In this way then, a more accurate measure of quality in education is found in the equality of opportunities created for individuals or groups as opposed to, or rather in addition to, examining outcomes and increasing access (Tikly & Barrett, 2011).

Alkire and Deneulin (2009) clarify the focus of the capability approach on expanding people's freedoms (what they value) as opposed to focussing on directly improving the functioning's of people. They argue that enhancing people's functioning's can be accomplished through a variety of means, even forceful exertion of power, oppression, brutality and colonial means (Alkire & Deneulin, 2009). "Focusing on freedom draws attention to development and these

have to cultivate empowerment, responsibility, and informed public action" (Alkire & Deneulin, 2009, p.36). In this way individuals have the option whether to obtain, or not obtain a functioning because they have the freedom to do so. An important element of the capability approach is the focus not only external factors that can help or hinder conversion, but on agency or choice as an internal factor; the right to choose which functioning's to pursue, which can also be affected or adjusted as a result of an individual's context (Goerne, 2010; Tikly & Barrett, 2011).

According to Tikly and Barrett (2011) quality education in African context is "education that provides all learners with the capabilities they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies and enhance individual well-being" (p.9). Their framework for thinking about social justice and how it relates to quality of education for low income centres around three dimensions: inclusion, relevance and democracy. Inclusion refers to the different levels of access to quality resources experienced by different groups (Tikly & Barrett, 2011). It is these resources which enable the development of capabilities and eventual functioning's. Inclusion also relates to obstacles in the learning process created by institutional and cultural factors and the extent to which these are addressed (Tikly & Barrett, 2011). Speaking from a social justice point of view, it is important to examine the inputs or resources required for a particular group in order to obtain the same capability set (Tikly & Barrett, 2011). Understanding the resource and input requirements by a particular group of learners allows for better planning (for an intervention) and redistribution. Relevance reflects on whether education outcomes are important to all groups of learners, whether outcomes are seen as valuable to the different communities and if they are in line with national priorities and development goals (Tikly & Barrett, 2011).

Curriculum relevance is an essential consideration under both the human rights and human capital approaches. For example, a child has received quality basic education if they obtain important life skills and acquire the necessary literacy and numerical skills to achieve desired or required outcomes throughout their schooling career (Tikly & Barrett, 2011). For advocates of social justice, curricula requires the recognition of language, identities (faith, racial, identities of those with disabilities), cultural lifestyles and histories in order to create equal opportunities and capabilities.(Tikly & Barrett, 2011).

The final dimension, democracy, speaks to the nature and extent of dialogue at local, national and international level and about the decision-making process for quality education. The social justice perspective necessitates public engagement by individuals, parents, groups and communities (Tikly & Barrett, 2011). Tikly and Barrett (2011)offer of the rising number of parent organisations in India and Pakistan holding their government's accountable for school outcomes as an example to illustrate an active social justice role that individuals can play in education quality. They go on to say that continued discussion, debates and robust research are healthy for democracy. Likewise, for Sen (1999) public policy plays a major role in increasing individual freedoms of people in society.

2.3.3 Structural and Process Quality

When it comes to the quality of the provision given by an ECD centre, one can take a number of views according to quality as defined by parents, staff members, children or by researchers (Ishimine & Tayler, 2014). Regardless of the perspective taken, quality can be thought of broadly as falling under two categories – structure and process. Other authors describe these constructs as being subjective or objective approaches. Structural quality is determined by external forces like policies, funding and government agency laws and by-laws and more easily quantifiable when attempting to measure quality. These structural features include the facility itself, resources, staff qualifications and teacher to child ratios (Ishimine & Tayler, 2014). Process features are concerned with the relationships and interactions that exist between ECD teachers and children, ECD teachers and parents as well as amongst the children. Process features have much to do with how the child experiences life within the ECD centre and the ethos created in the centre. The challenge arises in measuring process quality because it requires substantially more time to collect accurate data. Therefore, in general, because data on structural features is more clearly identifiable, captured and measurable, it is the preferred method (Ishimine & Tayler 2014).

Woodhead (1998) has questioned whether assumptions of quality should be the same for early childhood in a developed nation as they are for developing and underdeveloped countries. He argued that there were perhaps more important measures for quality than teacher-to-child ratios, toys and other resources; measures that focus on the purpose and objectives behind ECD programs. In this way, Woodhead (1998) posits that universal standards for ECD are not

something to be attained, but also rejects this idea of extreme relativism and expresses the dangers of imposing western value systems, ideals and beliefs.

According to Lee and Walsh, (2004) the debate over quality definitions in early childhood did not slow with spread of the concept of "developmentally appropriate practice" (DAP). DAP is grounded in Jean Piaget's theory of development, a constructivist approach, that is concerned with the processing of knowing and the stages that accompany this process knowledge acquisition (Huitt & Hummel, 2003). Schunk (2012, p.5) suggests that constructivism should be thought more of as an epistemology than a theory, an epistemology as it "refers to the study of the origin, nature, limits, and methods of knowledge" as opposed to a theory which is a "scientifically valid explanation for learning. This is because constructivists reject the notion that there are learning principles that exist which need to be uncovered and tested. Instead, they are of the view that learning is created by the individual (Schunk, 2012). Constructivism has within it three different perspectives: exogenous constructivism, endogenous constructivism and dialectical constructivism.

There are challenges in identifying the meaning of school readiness. The concept of school readiness has changed over the years, going from being based on children's ability to read, to adding more components to the definition (Scott-little, Kagan, & Frelow, 2006). Scott-little, Kagan and Frelow (2006) distinguish between readiness for school and readiness for learning, articulating that narrow definition that relates to having the necessary success factors or skills set to achieve within a school setting. This skill set includes physical, social and cognitive, and is usually defined and specific. In contrast, readiness for learning is associated with developmental progress, meaning that is more to do with individual learning pace, describing the extent to which a person is ready to learn a new concept or subject matter. The concept of school readiness speaks to the idea that there is a predetermined set of skills and knowledge which determines later success in school (Scott-little et al., 2006).

Perspectives of social constructivist theories suggest that readiness for school is defined by family, school and community factors, which means that social values and shared norms influence how this concept is framed (Scott-little et al., 2006). Therefore, there is no single definition for school readiness. An alternative and more comprehensive view of school

readiness incorporates “the capacity of families, early care and education programs, and the broader community to support children's early learning and development, and the capacity of schools to effectively educate children once they start school, as well as characteristics of children” (Scott-little et al., 2006, p.155).

Scott-little et al. (2006) analyse early learning standards across five development milestones; physical well-being and motor development, social and emotional development, approaches toward learning, language and communication development as well as cognition and general knowledge. Although this is an American view, the dimensions are universal since they are not dissimilar to those presented in the National Curriculum Framework (NCF) and adopted by the Department of Basic Education. The NCF outline six Early Learning and Development Areas (ELDAs) which consist of the following dimensions: that of wellbeing, which encompasses “emotional, social as well as the physical aspects of children’s development. Well-being is very important because when children are healthy, physically active and well-nourished then they are motivated” (DBE, 2015, p.5). A child’s wellbeing is largely dependent upon their perceived value and the strength of support structures in the family or household as well as within the ECD programme. The child ought to feel a sense of safety and security in these environments. The second dimension; that of identity and belonging; refers to “personal development, social development, secure relationships and celebrating difference. The stronger the child’s identity and sense of belonging, the more resilient he or she will be” (DBE, 2015, p.9). Identity and belonging is all to do with children exploring themselves and the world around them confidently and are building their capabilities with the support of trusted adults. The third dimension; that of communication; is concerned with verbal and nonverbal communication that contribute towards making sense of experiences and the world. According to the NCF, “children who receive a firm grounding in their mother tongue are better able to learn new ideas and words. They use their mother tongue to develop their sense of identity and for conceptual development” (DBE, 2015, p.13). The fourth dimension; that of exploring mathematics, which is “about children developing an understanding of how to solve problems, how to reason and how to use mathematical concepts in their environment” (DBE, 2015, p.17). Essentially, this is about helping children to build critical thinking and problem-solving skills as well as creativity by using mathematical concepts. The fifth dimension; that of creativity; “means that children produce new and useful ideas and solutions to problems and challenges. To create is to invent and to find solutions by asking questions” (DBE, 2015, p.19). Creativity falls within the

category of arts as well as problem solving, therefore, the intent of this ELDA is to expose children to the kinds of activities that develop these skills. The sixth dimension; that of knowledge and understanding of the world focuses on the importance of providing children with the opportunities to learn about the world around them (DBE, 2015). A child's world includes the physical and immediate environment, their family and cultural history, the geography of their natural environment like rivers, hills, the weather, and the equipment used in the home.

2.4 Challenges to Political Understanding of Educational Quality

Many researchers have, for decades, used a cultural deficit approach to explain why children who are from low socioeconomic backgrounds, and non-white children, continuously underachieve in school (Irizarry, 2009). It suggests that cultural capital includes long-standing dispositions and habits acquired in the socialisation process, the accumulation of valued cultural objects such as paintings, and formal educational qualifications and training (Anheier, Gerhards, & Romo, 1995). In this approach, researchers, teachers and other practitioners place the blame on communities, the family and the individual (Irizarry, 2009). It is also important to note that while socioeconomic status (SES) may be a descriptive factor, it does not explain why there are discrepancies that exist in child development or achievement. (Irizarry, 2009). In other words, although research evidence may suggest that SES can predict certain aspects of child and adult outcomes, it does not explicate the underlining reason for the relationship between SES and outcomes (Hoff, 2003). SES is usually determined by a combination of a person's income, occupation and educational background, it is related to a person's or group's position in society or their social class (Winkleby, Jatulis, Frank, & Fortmann, 1992). The cultural deficit model ignores systematic oppression and institutional factors as potential influences on academic achievement including school funding and segregation based on race and ethnicity, which usually favour predominantly white schools in predominantly white neighbourhoods (Irizarry, 2009). According to Nitza Hidalgo, Abdul-Adil and Farmer (as cited in Irizarry, 2009), the argument that parents from ethnic groups and low socioeconomic backgrounds are disinterested in their children's education is disproved by research which shows that parents either participate in their children's schooling in ways that are not recognised by the education system, or that they are more willing to participate in schools when their contributions are valued and when they feel a sense of empowerment (Irizarry, 2009). The deficit approach to

some extent, shifts responsibility of education from schools to the family for educational attainment (Irizarry, 2009).

SES is usually measured by taking into account parent education level and occupation, but Farah et al. (2006) suggest that it consists of more than this, including "associated differences in physical and mental health…and in physical and psychosocial aspects of the environment" (p.166). Farah et al. (2006) examined the underlying association between poverty and lower cognitive functioning of sixty children from low and middle SES backgrounds in the United States. The study only included African American children, from both low and middle SES families, who were healthy. The mean age for both groups was 11.7 years of age. The authors argue that the composition of SES is the reason why there are links between SES and cognitive development. On the face of it, SES is simply about parent education and occupation and income. However, it includes aspects of parental physical and mental health as well as influencing factors in the physical and social environment (Farah et al., 2006). Evans (2004) argues that SES is linked with psychosocial and physical environment, particularly for lower SES children since they are exposed to more stresses in poverty. "Important psychosocial factors include the presence of both parents in the home and parental stress and depression. Physical factors include nutrition and exposure to pollutants. Any of these is, in principle, capable of influencing brain development and function. In addition, some of the variance in an individual's SES has been attributed to genetic factors" (Farah et al., 2006, p.166-167). The study examined SES impact on cognitive functions in children, comparing 30 children from low SES and 30 children from middle SES background. The results suggested that higher SES had a more significant and positive effect on certain aspects of cognitive functioning, namely on working memory, memory, cognitive control, and most of all on language skills. However, the results from test scores from rewards processing, spatial cognition and visual cognition did not appear to be significant.

Sampson, Morenoff, and Gannon-Rowley (2002) go beyond the narrow view of SES factors and poverty as determinants for child and adolescent outcomes, to look at how social and institutional processes impact neighbourhoods; the manifestation of the "neighbourhood effect". The authors isolated four mechanisms that could help to explain common characteristics and influences of neighbourhoods. These include social ties or interactions, norms and collective efficacy, institutional resources and routine activities (Sampson et al.,

2002). Social ties are types of relationships that exist within a community, amongst neighbours and the strength of those relations. These ties are the primary source of social capital. "Although social ties are important, the willingness of residents to intervene on behalf of children may depend, in larger part, on conditions of mutual trust and shared expectations among residents" (Sampson et al., 2002, p.457). The second category, that of norms and collective efficacy, describes the established norms that guide neighbourhood actions. It also refers to the level of cohesion in that neighbourhood and shared values as well as expectations. The third category, institutional resources, relates mostly to the level and quality service provision and resources that can be found in a community that meet the needs of children and young people such as, child care facilities, libraries, recreation centres, health facilities and opportunities for employment (Sampson et al., 2002). Although research is limited in the fourth category, Sampson, Morenoff, and Gannon-Rowley (2002) argue that examination of the impact routine activities on the wellbeing of children is important. These routine activities include the movements of people during the day time and night time, use of commercial land, the location of schools and transportation modes and routes (Sampson et al., 2002).

2.5 Practices and Quality of Early Childhood Development in sub-Saharan Africa

In addressing ECD from an African perspective, Ngwaru (2012) explores a hurdle that continues to persist despite the fact that access to early childhood education has increased in numerous countries in sub-Saharan Africa. When children transition into school there is still evidence that a significant number of them struggle with basic literacy, and these challenges are compounded throughout their schooling career (Ngwaru, 2012). Ngwaru (2012) argues for increased parental involvement in order to sustain early learning and encourage literacy development early on through social and emotional development support. He refers to a population group that is categorised by low income rates, higher malnutrition averages and greater incidence of health-related problems as being burdened, according to world standards, with experiencing poor quality education. Lower quality of education is exacerbated by having teachers that are less qualified, or not qualified or experienced at all, poor infrastructure and limited resources and learning materials (Ngwaru, 2012). Even after ECD teachers received training, literacy scores (during the period 1997 to 2000) for South African preschool children showed no improvement on average, according to the Department of Basic Education (Desmond, 2004). The Department of Basic Education also reported that more than fifty percent of grade 3 pupils performed at a less than the expected level, while on an international ranking

scale South African children aged 9 and 10 scored the lowest (Tomlinson, Cooper, & Murray, 2015). This shows that there are still considerable gaps in ECD and early formal education.

Based on a study conducted in a Zimbabwean community, Ngwaru (2012) argues that parents in low income communities may be excluded from the education process for several reasons. Perhaps the most prominent of these is that although education is a priority, ensuring that the basic needs of the family are met, such as the provision of food, clothing and shelter which override the concern for secondary needs (Ngwaru, 2012). Secondly, for some parents it is a question of awareness; that is, parents are unaware that literacy begins early in a child's life. Literacy could be nurtured in the home as well, by creating the type of environment that stimulates child learning and development (Ngwaru, 2012). So how can parents position themselves to contribute further to sustained access to education and development?

Academic achievement patterns from developed countries infer that a child's socioeconomic background is a determinant factor in how well a child performs in school (Fuller, Dellagnelo, & Strath, 1999). However, in the developing world (or low-income countries) there are other, perhaps more important, influencing factors resulting in a seemingly weaker relationship between family background and academic achievement (Ngwaru, 2012). For example, a Brazil study conducted in 1996 sought to find ways to enhance literacy levels of young children by improving government funding strategies and programmes picked by gathering primary data on 94 schools, interviewing 140 teachers and 1925 children in grades 1 and 2 (Fuller et al., 1999). Children were also asked to collect data on the home environment such as the size of the household and condition of the home, as well as parent occupation, income and education level. Fuller et al. (1999) assume, based on research, that aspects of teacher and school quality explain variations in literacy development, including infrastructure, teacher recruitment policies, teaching and learning materials, and classroom practice. While family background may not comprehensively determine academic success, certain variables in the variables in the home are associated with child learning and development (Fuller et al., 1999).

Ngwaru (2012, p.32) states that, "for less resourced communities, there is an abundance of "families' funds of knowledge: those historically developed and accumulated strategies, skills, abilities, ideas, practices and bodies of knowledge that are essential to a household's

functioning and wellbeing". He suggests that parents, literate or illiterate, can play an active role in their children's development by tapping into indigenous knowledge and translating this into culturally appropriate practice. The East Africa Quality Early Literacy project, that was carried out in Kenya and Uganda, illustrates the journey of empowerment travelled by parents, going from not feeling "qualified" to take part in the reading programme to feeling confident in their abilities and the important role they play in developing children (after training) and seeing literacy improvement in themselves as well as social and emotional development in the children.

Ultimately, Ngwaru (2012) sees parental involvement as a necessary step in ensuring the ultimate goal of ECD centres or other early education programs to adequately prepare children for primary education and their schooling career. Similarly, in three deeply rural parts of Southern Drakensburg KwaZulu-Natal (KZN), the Family Literacy Commission, undertook a project to simultaneously improve adult literacy and encourage early learning literacy (Desmond, 2004). The intervention was carried out over two years starting in March 2000 where six workshops were run in each of the three areas. It began as an intervention solely focused on parents playing a supportive role to help improve literacy in children, however, as a result of community needs and nuances, the project adjusted its approach and aims (Desmond, 2004). The project approach emphasised the key role played by parents' attitudes, and the role that the nature and quality of interaction between parents and children played in developing literacy competencies, as opposed to simply reading to a child (Desmond, 2004). Evaluation of the programme began in October 2001 and project participants cited what they believed to be the benefits of early literacy, which included; "teaching a child before crèche", "protecting children from abuse", "teaching children what is wrong and right and dangerous", "caring for children" and "working together as a family" (Desmond, 2004, p.359).

Following this idea of the quality of interaction between parent (or other adult) and child, dialogic reading, which describes interactive adult behaviour during book sharing; the adult will react to the child's cues and follow the child's interests and will also provoke thoughts and reflection by asking the child questions and offer praise and encouragement. The parent is fully engaged during dialogic reading (Vally, Murray, Tomlinson, & Cooper, 2015). This formed the basis of the book sharing initiative that was recently tested in a South African community approach (Vally et al., 2015). Results from the test group in Khayelitsha, South Africa,

demonstrated positive results for children who were the beneficiaries of the book sharing training in verbal comprehension and production, as well as a particularly strong association with attention, which has been linked to cognitive development and intelligence quotient (IQ) test scores (Vally et al., 2015). This randomised control trial included 49 mothers in the intervention group and 42 mothers in the control group, all of whom had children who were between the age of 14 and 16 months. In other, similar countries such as Mexico and Bangladesh, the intervention carried out with caregivers and teachers and evaluation results (controlled experiments) saw significant improvements in expressive and receptive vocabulary amongst children who were recipients of the intervention which translates into gains for the process of child development (Vally et al., 2015). As with many training programmes however, lasting training effects can often be reduced over time as was found in the United States of America (USA) 6 months after training was completed (Vally et al., 2015). Therefore, long-term support is a necessary component of these types of programmes.

The National Association for the Education of Young Children (NAEYC) states that at the core of developmentally appropriate practice (DAP) is an emphasis that a teacher's practice is guided by specific goals for development and activities ought to be directed to supporting the child to attain these goals (2009). They go on to suggest that DAP is responsive in its nature as teachers can alter their practice depending on individuality of children and as a teacher learns more about a child and their family and wider social and cultural context, this will help the teacher to enhance the programme and educational experience (NAEYC, 2009). Walsh (1991) found a crucial flaw in this school of thought in that it assumed a universal standard for what DAP means without considering teacher belief systems. Halford (in Louren & Machado, 1996) noted that Piaget's theory was inadequate and called for alternate theories to be tested. Another common critique of Piaget's theory is that it doesn't consider social factors that have an influence on development.

Lee and Walsh (2004) use program evaluation as their basis to tackle quality in ECD programmes. They also note that "evaluation can both influence and be influenced by definitions of quality" (Lee & Walsh, 2004, p.352). Their focus in trying to examine quality definitions was to understand quality as defined by evaluators and ECD teachers by looking at early childhood programmes targeted at children between the ages of 3 and 5. They found quality to be defined according to outcomes, based on standards and determined by whether or not the

programme is deemed developmentally appropriate (Lee & Walsh, 2004). Outcomes quality is based on measuring child outcomes using an assessment tool.

DAP has been criticised by some researchers, evaluators and practitioners. For example, it has been criticised for its lack of inclusiveness in relation to culture (Lee & Walsh, 2004). Because ECD centres were established to bridge the gap between advantaged and disadvantaged children, numerous assessment tools only exist to exemplify those differences in backgrounds. On top of this, others have pointed out that there is not a strong enough correlation between assessment results and the quality of the program, and that children are not the most reliable test subjects. ECD teachers point to the gap in measurement tools for development aspects that cannot be quantified. As some teachers pointed out the negative nature of child assessments as being judgemental on teacher instruction and child performance instead of offering support to teachers (Lee & Walsh, 2004).

Quality based on standards, or more appropriately, compliance, more often than not use well-established standards and scales to determine whether a programme is performing as it should. There are some downsides to using universal standards to evaluate quality, including rigidity of application, weak association with outcomes, the definition of quality used in formulating these standards, and their limitation in aiding stakeholders to get a true reflection and an in depth understanding of a programme. Although there are criticisms of using universal standards to measure quality, they can be useful (Lee & Walsh, 2004). Evaluators have pointed out that these standards allow for objectivity which is useful when comparing numerous different programmes because they provide a basis upon which to build and design an evaluation, and because these standards are readily available. There are a number of evaluators, researchers and practitioners on both sides of the fence for this relatively new, but highly regarded school of thought. They go on to say that "many scholars have warned that universal standards and criteria for program quality cannot adequately capture the complex dynamics of the teaching–learning process and may trivialize pedagogical practices and program operations by overemphasizing easily observable aspects of the program" (Lee & Walsh, 2004, p.369). Lee and Walsh (2014) argue against limiting programme quality to test scores in outcomes measure alone. It is difficult to test scores to reveal whether a program worked and how it was successful. They argue that in order to get more value out of evaluations, much like participatory or collaborative practices, it is important to include all relevant stakeholders in a process to cogitate on the goals of the

program, the theoretical framework underlining the program, teaching style, values and overall context in which the programme is intended to operate.

2.6 Conclusion

The chapter sought to determine and understand quality in ECD. A challenge within the ECD sector is that there is no universal definition of quality, however, researchers and practitioners, to some extent, agree that there are structural and process components to defining quality, which form the basis of the research design and objectives of ECD programmes. Structural elements of quality include the facility, the centre's resources, staff qualifications and teacher-to-child ratios. Defining quality in terms of process entails the examination of the relationships and interactions amongst children, between teachers and children, and between teachers and parents. Furthermore, the chapter outlines achievement gaps and possible reasons behind these gaps as well as defining quality in terms moral mandate and as an act of social justice. What is evident however, is the gap between policy and practice in realising the rights of children during the early years of a child.

Contextual considerations were illuminated in the literature by exploring the nature and complexity of community ECD interventions in sub-Saharan Africa. In South Africa specifically, DAP is the adopted theory for ECD which is used widely in developed nations but has also come under some criticism. It stands to reason that "if the factors that affect school performance (and eventually earnings) are determined at earlier ages, then policies that focus on school-aged children may be less effective than those that concentrate on children at younger ages" (Paxson & Schady, 2007, p.51).

3. THEORY REVIEW

The literature reviewed here outlines theories and research practice grounded in evaluations that include experimental, quasi-experimental and non-experimental methodologies. The logical framework model forms a staple component of much monitoring and evaluation (M&E) practice and will be discussed in this chapter. A significant portion of the review is devoted to exploring collaborative and participatory approaches, incorporating lessons from studies that have attempted to put these theories into practice, and the key findings from these. Once the theoretical grounding for M&E has been established, the literature will refer back to the main focus which is early childhood development (ECD) to discuss evaluative practice within ECD. Moreover, this chapter will inform the main research question which asks about the dimensions of quality and how quality can be improved.

3.1 Theory and Practice of Monitoring and Evaluation

Lamhauge, Lanzi, & Agrawala, (2012) define monitoring as a process of systematic data collection based on pre-set objectives (or indicators). Mouton, (2007, p.491) suggests that monitoring is about "measuring of a particular state of affairs". Instead, he suggests that the purpose of monitoring is to rectify any deviation from pre-determined objectives. In comparison, evaluation is concerned with measuring changes that occur over time and with identifying areas of improvement and excellence (Mouton, 2007). Saunders (2006) sees evaluation as an instrument for those in a position of disadvantage to be heard, encompassing aspects that were unplanned and unforeseen for potential and actual stakeholders. Through all these approaches, evaluators' biggest tension in methodology is maintaining validity in a dynamic and complex reality which means that there is an extensive number of influencing factors on outcomes (Mouton, 2007). In addition to this, evaluators must battle with the knowledge that the presence of an intervention can alter a social setting and influence outcomes (Mouton, 2007).

M&E is useful for organizational development and to inform programme designs and advance the field of research (Guinea et al., 2015). In addition to this, a well-considered M&E system has a "good and clear understanding of the research cycle: what the results (outputs and outcomes) of the research are, how the results are used and applied by the end users and what impact the results can have on both academic and non-academic spheres" (Guinea et al., 2015,

p.133-134). Essentially, the purpose of the evaluation needs to be explicit as this will guide the process (Penfield, Baker, Scoble, & Wykes, 2014). Another feature that sets this evaluation apart from monitoring is that evaluation involves an element of making judgements on findings (Mouton, 2007). Systemic M&E uses a version called the Logical Framework that adopts a methodology that outlines assumptions and objectively verifiable indicators (OVI) against which performance will be measured (Cameron, 1993). This framework brings together planning and implementing agents together to run evaluative tasks alongside monitoring activities. The fundamental principle underlying the logical framework is to create a management information system where "all activities and processes associated with a project or programme are mapped into at least one measurable indicator" (Cameron, 1993, p.94) and identifies those responsible for measurement. Additionally, logical framework embodies a top down approach so that all activities continually feed into the project outcomes (Cameron, 1993). Brickman (in Riemer & Bickman, 2011) argued that the use of logical models which assume that the there is a rational order to how inputs, processes, outputs and outcomes interact is a fundamental flaw in the approach to program design and evaluation.

The logical framework is sometimes referred to as program theory or program-theory evaluation, or theory-driven evaluation. Program theory approaches have been adopted by many agencies in different fields, for example the evaluation of humanitarian effort by the World Bank and to evaluate public health initiative (Coryn, Noakes, Westine, & Schroter, 2011). It is becoming a growing trend and need for program evaluators to demonstrate a core competency for program theory (Coryn et al., 2011). Program theory is an evidence-based (reason and logic) exercise that results in the creation of a model demonstrating how a program ought to work (Chen, 1990). Typical program theory involves a clear description of the problem, in whatever shape that problem comes, the target group and framing the context. Secondly, it involves specification of the program elements and skills needed to produce a desired effect. And lastly, the project outcomes and key performance indicators need to be identified (Reynolds, 1998).

Coryn et al., (2011, p.201) offer the following definition for theory-driven evaluation, which they see as synonymous with program theory evaluation; that it is "any evaluation strategy or approach that explicitly integrates and uses stakeholder, social science, some combination of, or other types of theories in conceptualizing, designing, conducting, interpreting, and applying

an evaluation". As previously mentioned, a program theory or logical framework or evidence-driven evaluation will more often than not include inputs, activities, outputs and outcomes. Outcomes refer to the desired changes, both direct and indirect. Coryn et al., (2011) place outcomes into three categories. The first is initial outcomes which refer to changes in knowledge and abilities. The second is intermediate outcomes which describe behavioural changes. Lastly, long-term outcomes result in shift in society like a reduction in the number of sexually transmitted infections or poverty alleviation. This approach seeks to investigate the extent to which evaluation theory applies to, or is in line with, practice in the real world (Coryn et al., 2011).

Other authors argue that theory-driven evaluation answers the question of "what and how", which makes it useful when seeking to establish a programme's effectiveness, or in making scale-up decisions, or improving a program (Coryn et al., 2011). However, Scriven (1998) in (Coryn et al., 2011) argued that it is not within the evaluator's capacity to determine how the programme works. He insists that it is sufficient for evaluators to demonstrate that *x* will cause *y*, as opposed to revealing why *x* causes *y* (Coryn et al., 2011). Scriven (1998, p.59) defines theories as "sets of propositions which jointly provide explanations and integration, so a list of components, even if supplemented by an account of how they fit together, is not a theory of operation, because it provides no explanation of the fit, or of the unifying logic of operation. It is simply a set of instructions for assembly. Nor is a set of simple observations about the connections between components a theory of the evaluand; at most, it is a partial set of intermediate level propositions that have to be derived from anything purporting to be a theory". He argues that not all evaluations need to be driven by theory (Scriven, 1998). Cautioning against Chen's program theory, Scriven (1998) describes two types of theories; internal theories describe how an evaluand produces a given set of outputs, whereas, external (or intervention) theories illustrate how outputs produce certain effects (or outcomes). In essence, it is more crucial to understand a programme's external theory because it is possible to understand the effects that a programme or intervention might have without knowing how the programme works, or generates outputs (Scriven, 1998).

Reynolds (1998) expanded on a theory-driven approach, in what he terms confirmatory program evaluation (CPE), at a time when theory driven approaches were relatively underutilised in the social sector. This methodology is useful to pinpoint programme effects by

establishing and analysing causal links between variables and outcomes (Reynolds, 1998). Program theory attempts to manage causality by measuring actual outcomes against intended outcomes and is articulated in a map designed before implementation, of how the programme was expected to run (Reynolds, 1998). However, it cannot explain how and why a programme works; this is where theory-driven evaluation comes in, making it a complementary methodology (Reynolds, 1998). Nonetheless, Riemer & Bickman (2011) postulate that the reason why many interventions were not as effective as they were intended to be is that much of the programmes were developed under a particular ideology or a perceived problem and, not founded on solid theory.

The distinction of CPE from other theory-driven approaches is that it is purely focused on quantifying the programme outcome (Reynolds, 1998). CPE rests on the assumptions that programme objectives are expressed, that implementation is, for the most part, carried out as planned, and that program theory is measurable (Reynolds, 1998). In simple terms, CPE makes a judgement on programme outcome by exploring, at the highest level, the coherence of the entire story; that is, making a clear pathway and link between theory, the target group and the implementation process that compellingly explains the effect of the programme (Reynolds, 1998). Secondary to this, and playing a supportive role in the interpretation of evaluation findings, Reynolds (1998) argues, is consistency (of the supposed relationship between the programme and outcomes), specificity (the programme should result in changed behaviour or outcomes in a certain domain), gradient effect (more is better – more exposure the programme produces better outcomes resulting in a steeper slope), strength of association (the size of the outcome matters because it increases the likelihood of causality, ceteris paribus) and temporality of programme exposure (that ideally CPE would occur after the programme has been completed).

A history lesson takes us back to a time, to the 1960s, where scientific methodologies were seen as superior in the field of research. Experimental approaches were adopted to understand and solve social phenomena; these were based on random selections of a study group and may also include prior and post testing (Mouton, 2007). According to Stufflebeam (2001), this type of evaluation was common during the 1960s and 1970s in the USA and was used to assess social service interventions and interventions in schools. The inevitable challenge of utilising laboratory practice in social contexts became apparent; it is difficult to meet the conditions of

an experiment in real life (Stufflebeam, 2001). In the 1970s, evaluators typically played no part in defining the problem, neither in program design nor in implementing the initiative (Riemer & Bickman, 2011) nor did experimental designs examine the context and the needs of the target population (Stufflebeam, 2001). Both experimental and quasi-experimental designs unable to adequately answer the questions that needed to be answered in order to conclude that a programme was successful and worth continued investment (Stufflebeam, 2001).

3.2 Participatory and Collaborative Evaluation

At times initiatives may possess complexities that require more comprehensive and robust models to address the unique evaluation challenges of community-based programmes. The theory of change approach to tackling complexities of community-based initiatives was born out of the need to more adequately explain the deficiencies of prevailing approaches. Connell and Kubisch (1998, p.16) define the theory of change as "a systematic and cumulative study of the links between activities, outcomes and contexts of the initiative". An evaluation that follows this approach is concerned with the big picture, in other words, the long-term goals which the project or programme set out to achieve and the strategies mapped out to accomplish these goals.

This category of programmes (complex community initiatives) are established to "promote positive changes in individual, family and community institutions; develop a variety of mechanisms to improve social, economic and physical circumstances, services and conditions in disadvantaged communities; and place a strong emphasis on community building and neighbour- hood empowerment" (Judge & Bauld, 2001, p.24). According to Judge and Bauld (2001), the complexities that can arise in community-based programmes may be as a result of a number of factors. Firstly, the factors in these systems may be uncontrollable, resulting in unintended effects on evaluation. Secondly, there may be difficulties involved in measuring certain outcomes or tasks. Thirdly, community-based initiatives set objectives and adopt strategies for goals that are prone to shifting as time passes. Lastly, complexities emerge from the presence of numerous activities operating at differing levels. Theory of change focuses on getting a clear understanding of the long term vision and outcomes of an initiative and identifying the activities that are needed to accomplish desired outcomes and the strategy to reach the long term outcome of the intervention (Judge & Bauld, 2001). Theory of change

attempts to establish relationships of causality between activities and outcomes. It is a powerful approach to use in the planning phase of a comprehensive community initiative and goes beyond other approaches because it does not only generate knowledge in understanding whether or not activities produce desired change, but continuously asks why and how (Connell & Kubisch, 1998).

Judge and Bauld (2001) suggest that there are numerous difficulties existent in this type of approach but perhaps the most noteworthy is the challenge to create the logic during theory development due to clashing ideas between teachers and evaluators and other stakeholders. In addition to this, the resources needed to reach an agreement theories and on planning and implementation can be quite significant (Judge & Bauld, 2001). Another difficulty is the requirement for stakeholders to be analytical in this approach, which Judge and Bauld (2001) argue is counterintuitive for teachers because they tend to be empathetic, responsive and rely on their instincts.

Inherent in Saunders' (2006) definition of evaluation is the idea of quality and meaningful change because he sees evaluation as a tool to express and illuminate the experiences of people in a position of disadvantage as well as to show how policies are actioned in reality and their potential for improvement. Evaluation also concerns itself with unforeseen and unintended aspects of evaluation practice. To fulfil a holistic view of evaluation, difficult as it might be to accomplish in practice, Saunders (2006, p.198) identifies five dimensions for evaluation as; "the voices of the 'recipients' of evaluation programmes and projects, the voices of the potential users of evaluation, the presence of analogous processes in institutional and social learning, the presence of theory in evaluation, the international presence of evaluation". To get the most out of an evaluation in terms of validating it's basis and maintaining integrity throughout the evaluation process, Saunders (2006) argues that the group that receives the programme or policy will be the greatest source of data. Therefore, the voices of recipients should be represented early on in an evaluation and built into the design. In the case of ECD centres, this group might include the parents and children (both classified as beneficiaries). The owners or designers of programs will establish their own set of objectives for programmes. These should seriously consider what the beneficiaries expect and desire as opposed to only external stakeholder voices being heard. Saunders (2006) focuses mainly on policy evaluations when considering potential users as the public. For example, the public may be interested to receive policy or programme

evaluation outcomes and external evaluations as a way of holding governments accountable for responsible tax payer spending. Apart from accountability, Chelimskey (1997) goes on to categorise a development and knowledge accumulation role for evaluation, that is, development to build organisation or project capacity and knowledge to gain more insight into a particular area of interest.

Mouton (2007) identifies the main components of participatory evaluation as encompassing a scenario where evaluators act as facilitators of the evaluation process and as experts of methodology. Programme recipients and evaluators together decide how, when, and where the evaluation ought to be executed, as well as the appropriate actions to take based on evaluation results (Mouton, 2007). Participatory evaluation is both a learning and an educational process (Mouton, 2007). It is educational because it involves a process of knowledge generation, or a process of developing theory about the social reality and action to be taken. Participatory evaluation is a continuous learning process that results in transfer of knowledge amongst stakeholders involved in the evaluation, improved efficiency and autonomy.

Cousins and Whitmore (1998) adopt the premise that those who engage in participatory evaluation fall into one of two approaches. The first approach focuses on decision making, where the aim is to obtain better information by broadening stakeholder engagement systematically and solving problems more effectively; this is termed practical participatory evaluation by Cousins and Whitmore (1998). Unsurprisingly, this approach supports decisions from the organisation standpoint, about programmes or policies, with the thinking that greater stakeholder reach during the evaluation process "will enhance evaluation relevance, ownership, and thus utilisation" (Cousins & Whitmore, 1998, p.6). For evaluation, utilisation refers to uses for decision making, for organisational learning and strengthening, and for lobbying or evidenced support for a particular decision. The second approach to participatory evaluation, termed transformative participatory evaluation, is about a role shift for those who were historically the receivers of program or interventions, allowing them to become creators of their own knowledge systems, with control over this knowledge (Cousins & Whitmore, 1998). This aims to build sincere and sustained relationships between the target group and researchers in order to foster more in-depth understanding of the social reality.

The last underlining principle in transformative participatory evaluation involves thoughtful introspection of one's own presupposed ideas and biases as well as critical reflection, critiquing and questioning. Cousins and Whitmore (1998) offer a continuum from which all participatory evaluation methodologies can be derived based on three distinguishing factors. They suggest that these distinctions are useful in the methodological design of any research inquiry and the evaluation process, be it of a collaborative nature or not. These distinguishing factors ask whether control (of material decisions) of the evaluation process lies more with the researcher or the practitioners. Secondly, the choice of who should participate in the evaluation process, that is, limited participation or full inclusion of all relevant stakeholders. Lastly, participatory evaluation can be distinguished by the level of involvement from participants; do they contribute as and when needed and are participants involved in every design aspect, the data collection process, analysis of results and post evaluation action based on outcomes (Cousins & Whitmore, 1998)?

In addition, Fetterman (as cited in Patton, 1997), recognised gaps that were not explained within the paradigm of participatory or collaborative evaluation. He saw empowerment evaluation as an answer to the extent of participatory evaluation. For instance, while participatory evaluation includes a range of recipient involvement from minimal to full, empowerment operates at a level of full recipient participation or control of the process. The process of empowerment incorporates supportive activities where evaluators advocate on behalf of, or capacitate the disempowered target groups to advocate for themselves, or training the target group to conduct their own evaluations. Both of these elements, Fetterman (as cited in Patton, 1997) argues, are in place to facilitate the primary goal of empowerment evaluation, that is to bring about 'liberation', the achievement of self-sufficiency and autonomy.

Guba and Lincoln (as cited in Mouton, 2007) suggest that the empowerment of intervention recipients or target groups is something that can be attained in what they term "fourth generation evaluation" which appears to be consistent with transformative participatory approaches. For Guba and Lincoln (as cited in Mouton, 2007), empowerment is manifested in target groups when they are able to take ownership of evaluation results and take the lead in implementation of those findings because evaluations are "negotiated co-creations of social reality" (Mouton, 2007, p.497). Attempting to separate evaluators from those who are being evaluated is not possible nor is it valuable, if for instance, all parties are interconnected and maintain evaluation

integrity through a constructivist approach (Mouton, 2007). Fetterman (as cited in Patton, 1997) has been criticised for not presenting anything different to already existing theory on participatory, collaborative and utilisation-based evaluation. As an alternative, Patton (1997, p.20) raises a utilisation approach in which he stresses that "evaluation begins with the premise that evaluations should be judged by their utility and actual use; therefore, evaluators should facilitate the evaluation process and design any evaluation with careful consideration of how everything that is done, from beginning to end, will affect us".

Polet et al. (2015) suggest that the goal of empowerment can be achieved through the use of the "most significant change" methodology (MSC). MSC asks the recipient of the intervention or program which changes occurred as a result of the initiative by asking questions such as, "who did what, when, why, and why was it important?" (Polet et al., 2015, p.72). This methodology lends itself to participatory approaches of evaluation because it focuses on learning more about the individual, in relation to their perceptions, experiences and personal drivers on their journey of self-determination. MSC is about understanding the individual's or target group's journey towards empowerment and impact (Polet et al., 2015). In this regard, then, most significant change methodology acts as a complementary tool for quantitative research or evaluation methods.

3.3 Evaluative Practice in Early Childhood Development

There are numerous limiting factors that can be experienced in impact evaluation. These challenges vary according to discipline and research area, but include time lag, the developmental nature of impact, attribution, knowledge creep and the process of gathering evidence (Penfield et al., 2014). In early childhood, and more specifically in ECD centres, defining this desired impact is crucial for successful evaluation of practice. Results from an analysis conducted across numerous states in one country suggest that early learning standards for school readiness are not standard (Scott-little et al., 2006). Instead what they found is variability in the weighting of each of the dimension and variability in the emphasis of the indicators under each dimension. What is also important to note here is that the development process of these standards according to Scott-little et al. (2006), used an extremely participatory methodology which may explain the variability in the early learning standards that were developed by each state.

Šebart and Hočevar (2014) present two views about how early childhood quality is defined in Slovenia. The more common of the two approaches is founded in research techniques (child outcome assessment tools, questionnaires, interviews) which involves performing tasking systematically to measure against set goals (Šebart & Hočevar, 2014). The alternative approach, based on Reggio Emilia pedagogical approach, is supposedly truly child-centred, where the individual who received the programme guides and is in control of their learning process. A central belief then in this approach is that the most beneficial or optimal educational experience is where there is an exchange of ideas between the teacher and child as opposed to a pre-determined curriculum (Šebart & Hočevar, 2014). Dahlberg, Moss and Pence (2007) in (Šebart & Hočevar, 2014) argue that the concept of childhood and education are social constructs because these are ideas that have been constructed by psychologists, practitioners and other experts in a given social reality. Šebart and Hočevar (2014) follow Reggio Emilia's documentation as the preferred evaluation methodology to assess ECD programme quality. ECD teachers create meaning in their continuous observations and documentation (Šebart & Hočevar, 2014). Documentation encompasses both monitoring and evaluation processes as the documentation methodology is a monitoring practice that allows the output of monitoring to be used as an evaluation tool to assess individual child development and the group as a whole. The considerations made on documentations should not exclusively be for teachers, but can be extended to parents, other teachers and politicians. Dahlberg, Moss and Pence (2007) in (Šebart & Hočevar, 2014) are proponents of subjectivity over objectivity, they argue that although it has its limitations, the application of subjectivity in the educational process is the only way to create value. Turner and Wilson (2010, p.5) remind us that "documentation is not just a teaching tool, but a pedagogical philosophy of knowing and valuing children. Engaging in documentation can challenge one's conceptions of teaching and learning, including what it means to authentically search for meaning, and to rethink notions of public versus private knowledge".

To grasp the full extent and depth of documentation, Turner and Wilson (2010) emphasise that to move towards real change in the educational process, documentation ought not to be limited to being performed after learning has occurred. Experts of Reggio Emilia approach suggest that documentation is more than simply the physical action, but rather, is a mental action, a mind shift, an "approach of knowing" (Turner & Wilson, 2010, p.7). This term encompasses a

growing knowledge of the teacher alone, teacher-and-child relationship and how the child prefers to learn (Turner & Wilson, 2010). Ultimately, documentation brings the child back into view through listening and observation.

For the Slovenian context given by Šebart and Hočevar (2014), they argue that for a system of public schools, the less objectively evaluation of documentation does require a systematic (or methodological) approach to instrument design in order to ensure that evaluation is accomplished in a manner that is comparable across a wide system. Through a series of interviews with influential leaders of Reggio Emilia school of thought, Turner and Wilson (2010) unearth further insights on this approach. Carlina Rinaldi and Tiziana Filippini were two of these leaders. Both Rinaldi and Filippini recognise the difficulty of achieving individuality and a new type of classroom and school culture in a mass system that has standardised examinations and set teaching time (Turner & Wilson, 2010). In the Slovenian public preschools example, documentation is used as an additional tool for monitoring purposes (Šebart & Hočevar, 2014). Use of documentation in this particular manner is precisely what some experts have warned against since it does not fully encapsulate the true nature of the Reggio Emilia approach (Turner & Wilson, 2010).

Global trends to increase access and improve quality of early childhood programmes have led researchers to dive deeper and examine other methodologies to achieve these improvements. Nyland and Alfayez (2012) explore the introduction of assessment measures, in the form of learning stories, as the change agents in a Saudi Arabian, New Zealand and Australian context. Learning stories were favoured over formal and rigid forms of assessment because they are more inclusive in that they are more useful for teachers, provide a more supportive form of assessment for learner than a pass or fail assessment and were found to generate more interest from parents (Nyland & Alfayez, 2012). A learning story is both an observation method and a comprehensive assessment tool. Nyland and Alfayez (2012, p.394) define a learning story as;

"A narrative account of an incident that has taken place. The observer records the incident as a story. The story can involve individuals or groups. The teacher reflects on the story using learning dispositions to analyse the learning that has taken place. The learning dispositions are taking an interest, being involved, persisting with difficulty, expressing an idea or a feeling and taking responsibility".

Learning stories offer an opportunity for teachers to plan what to do next, based on outcomes from the learning dispositions. The components that make up a learning story include the incident (or story) which may be accompanied by visual aids (photographs), the analysis (based on learning dispositions), the learning that has occurred and finally, the last component focuses on what do to with the results of this assessment (Nyland & Alfayez, 2012).

Warash, Markstrom and Lucci (2005) suggest that researchers and practitioners agrees that creating a safe, supportive, healthy and stimulating environment are most desirable and conducive for a child's development. Their study focused on using the Early Childhood Environmental Rating Scale-Revised, as a mechanism for quality improvements, as defined by the indicators of this measure. These indicators include structural and process elements defined in seven subscales; space and furnishings, personal care, language and reasoning, activities, interaction, program structure, and parents and staff (Warash et al., 2005). An important element that Warash et al. (2005) highlight is development of unique objective for decision makers to work towards for improvement based on quality indicators. Hooks, Scott-little, Marshall, and Brown (2006) argue that even amongst qualified teachers, there is room for improvement. However, this cannot be accomplished only by instituting quality measures, it requires further training and support to encourage change (Hooks et al., 2006).

Dunst and Trivette (2008) rest on the premise that early childhood interventions should help ECD teachers to support them to provide better service to the children and parents, and should support parents to take better care of their children. In an attempt to bridge the gap between theory and practice they explore how evidence-based research can be used to improve evaluative practice in early childhood programmes. They offer the following definition for evidence-based practices, "Evidence-based practices are defined as practices informed by research findings demonstrating a (statistical or functional) relationship between the characteristics and consequences of a planned or naturally occurring experience or opportunity where the nature of the relationship directly informs what a teacher or parent can do to produce a desired outcome" (Dunst & Trivette, 2008, p.2).

The framework they offer for evaluating interventions relies on the examination of specified characteristics (of an intervention) in relation to intended outcomes, using an iterative coding

system or an already established coding system (Dunst & Trivette, 2008). Through this process of "practice-based research synthesis", the end goal is to unravel and explain an experience or intervention by isolating one or a group of characteristics. Research on the responsiveness of caregivers and the effect on of this on developmental and behavioural outcomes of children, practice-based research synthesis and reanalysis resulted in a number of characteristics being established as most important in producing positive child outcomes (Dunst & Trivette, 2008). This investigation pointed towards the notion that "behaviorally based interventions that specifically targeted parental awareness, interpretation, and responsiveness to their children's behavior were most effective, where the effectiveness was optimized when videotapes or in vivo observations of the targeted behaviors were used to illustrate a sensitive and responsive interactional style or videotapes were used to provide feedback to parents about their own interactional style" (Dunst & Trivette, 2008, p.6).

Martinez, Naudeau, and Pereira (2012) undertook an evaluation of a community based programme in Mozambique designed by Save the Children (STC). They adopted an experimental evaluation methodology (with a treatment and a control group) to examine the impact of this preschool programme on the children and families that participated in the programme. A baseline was created in 2008 and tested again in 2010, two years after the initial programme introduction. The preschool model places the community at the forefront of the intervention; each community is responsible for the administration, supervision and sustenance of the centres. STC play a supportive role in the programme by meeting with the committee members of each centre twice a year to help build capacity within the organisation and carry out monitoring activities. Other aspects of the physical environment were provided for by STC, this include building materials for classrooms and playground (as well as technical support for the construction of these), and resources for water and sanitation purposes. In terms of on-going support, STC also provided coaching and mentoring support to teachers, supervision and monthly visits. Volunteer teachers went through a fairly rigorous selection process that examined their basic mathematics and literacy skills as well as knowledge of ECD theory and practice. Moreover, the volunteer teachers were taken through foundation training to improve classroom practice over a period of five days, and received refresher training in the two years that followed. The programme usually began at 9am and lasted for a duration of three hours and fifteen minutes, consisted of a structured daily programme that promoted development through play and learning activities and did not include a meal constituent. The daily routine

consisted of six components; greetings, a literacy circle, corner play, a mathematics circle, outdoor play and closing or review. Impact assessment on ECD outcomes were extracted using interview with children, caregivers and grade 1 teachers. The results suggested that the programme effect was positive on cognitive and emotional skills, and showed an improvement on motor skills. The results for language skills showed no statistically significant improvements.

The evaluation also included an assessment on the impact of the programme on parents or guardians (in this case mostly mothers). A condition that was stipulated for parents or guardians to be able to enrol their children in the preschool programme is a commitment to attend parents' meetings once month. Other parents went beyond this volunteered to help with programme activities. There were found to be positive effects on child disciple, with an increased number of parents citing that they now believed that it is inappropriate to use physical punishment as a form of discipline. On the other hand, there was no statistically significant improvement in the book reading activities or playing games with children, nor was there any improvement in engaging in activities that developed children's self-sufficiency. In this specific example, the intervention freed up time for parents which resulted in increased labour activity in the treatment group over control group. In this way then, an ECD intervention is good for children and for families (Goldfeld, Woolcock, Katz, & Tanton, 2015).

3.4 Conclusion

The discussion above distinguished monitoring from evaluation activities and outlined the theories and frameworks that underpin evaluative research and practice. The logical framework has traditionally been the dominant framework used in evaluative research and practice. In recent decades, more emphasis has been placed on program theory or theory-driven evaluation, particularly in the social sector. Program theory uses reason and logic to explain how a programme should work, and articulates how program elements will produce a desired effect. More complex interventions with the social sector have called for a deeper level of evaluative practice in the form of participatory or collaborative evaluation. Both approaches fall within a continuum of limited participation e.g. from donors and practitioners, to full participation (collaboration) which includes participation from communities or intended beneficiaries of the programme. Evaluative practice in the social sector is increasingly adopting participatory

approaches as well as theory of change approaches to better formulate and map out programme designs, to understand the needs of all stakeholders and to isolate outcomes, outputs and activities. The literature suggests that the purpose of evaluation practice should be to understand the experiences of the target population or recipient of the intervention and to understand the impact of the intervention. Learning is a critical aspect of evaluations which involves bringing together all relevant stakeholders.

4. RESEARCH METHODOLOGY

The chapter considers suitable research methodologies for the purpose of this study. These methodologies include qualitative and quantitative techniques, namely interviews with structured (close ended) and unstructured (open ended) questions that were conducted with teachers and parents, observations at the early childhood development (ECD) centre and surveys to build ECD centre profiles. The literature reviewed in the previous chapter suggests that observation is an extremely powerful tool and is a necessary component to evaluate how well an ECD programme functions. Furthermore, there is a necessity to consider the physical environment when trying to understand quality in terms of structural elements. Moreover, the surveys were also used to reveal structural elements of quality. Finally, the data collection tools will help to build a framework for an monitoring and evaluation (M&E) system, which is one of the objectives of the study. The development of an effective M&E will mean that an external entity, like a donor agency or government, can utilise the tool to gain understanding where ECD practice stands, to gain insights and discover opportunities for improvements. Additionally, an ECD centre could utilise the tool to make their own improvements in structural or process quality.

4.1 Research Approach, Design and Strategy

Mapping out the research design involved considerations of the interaction between the assumptions that were brought into the study, the approach (or strategy) and methodology to carry out desired research (Creswell, 2009). To restate, the main assumption in this study is that there is a difference between community-based ECD centres and centres that are urban areas and operate as for-profit entities. Other assumptions were centred on the methodology. Firstly, in relation to the research design, in order to maintain integrity of responses and authenticity of the ECD centre environment as much as possible, centres were not given prior warning about the request to participate in the study. Secondly, based on experience working with community based centres, the assumption that was made about the limited access to committee members (as in any other non-profit organisation) informed the decision to accept the supervisor's consent for the centre to participate in the study.

The utilisation of both qualitative and quantitative methods for this study is based upon pragmatic views that truth exists in any number of realities, at a particular time (contextual),

and is within as well as with-out the mind (Creswell, 2009). In this study then, the purpose for utilising a mixed methodology of design, that is, a concurrent mixed methodology, is to discover unique elements, beliefs or practice in the target population that cannot be captured in closed-ended questions. In this case, the target population is the ECD practitioners and parents of children who attend the ECD centres. A qualitative approach emphasises the study group's experiences, sense-making and interpretation of these life experiences (Burns & Grove, 2003). A qualitative researcher seeks to understand a phenomenon in its natural surroundings, to discover patterns and to develop theories (Creswell, 2009). The object of inquiry in this study is the quality and operations in an ECD centre. Additionally, the parent as an individual is an object of inquiry with particular emphasis to how his\her ECD knowledge, behaviour and responsiveness relates to the quality of care and education a child receives in the home. To gain further understanding into the family component that may have an even greater influence on early childhood and development than an ECD centre, the research design incorporated nine short biographies. ~~(~~Roberts, 2002, p.5~~),~~ suggests that;

"The appeal of biographical research is that it is exploring, in diverse methodological and interpretive ways, how individual accounts of life experience can be understood within the contemporary cultural and structural settings and is thereby helping to chart the major societal changes that are underway, but not merely at some broad social level. Biographical research has the important merit of aiding the task of understanding major social shifts, by including how new experiences are interpreted by individuals within families, small groups and institutions."

Roberts points out that these life stories are a source from which insights about a phenomenon can be gained, or a source from where hypotheses can be developed to test using more scientific methods. However, due to the underlying theme of the research question to address the quality of early childhood care, as well as the unequal nature of service provision in South Africa, the employment of quantitative methodologies is useful for objective evaluation certain elements of an ECD centre (Creswell, 2009).

4.2 Data Collection Methods and Research Instruments

A significant portion of the practical research phase was dedicated to exploring the current status of the study participants' experiences in ECD and with community-based ECD centres. This was carried out using interviews for ECD teachers, along with observations and ECD

centre profiles. Polkinghorne (2005) likens the skills involved in extracting in depth information from research participants, to that of a counselling psychologist in their work. These skills include the ability to form a trusting relationship so that the interviewee is willing to share their experiences, to be a good and active listener, and to view the experiences from the interviewee's perspective (Polkinghorne, 2005). The interviews with ECD teachers occurred after the observation and profiles had been completed. The profiles were used as a tool to discern structural quality of the ECD centres and were developed using a questionnaire. To tackle the process related queries of quality, observations and interviews were the chosen data collection tools. Observations can act as a supplement material to clarify any information obtained during interviews (Polkinghorne, 2005). Comments that were made during the interview process can be reviewed or verified or clarified during observation. Studies that involve children tend to include observation as it difficult for children to practice reflexivity on their lived experiences. In order to strengthen the reliability of the data collected during observations, two individuals (the researcher and research assistant) observed at a time, discussed the findings and agreed on what was observed (based on the questions).

Research evidence suggests that the basic requirements for ECD care for children to develop to their full potential, be it in the home or in a centre are the same (Ngwaru, 2012). "Literacy is not only a cognitive skill to be learned; it is a complex socio-psycholinguistic activity" (De Witt, Lessing, & Lenayi, 2008, p.39). The authors are suggesting that these skills and tools are acquired informally well before a child sits behind a desk in the traditional school system. It is a combination of reading pictures and scribbling words and "ready knowledge gained from literacy experiences, verbal imitation and memory" (De Witt et al., 2008, p.39). Therefore, to elicit parental beliefs about their beliefs and knowledge of ECD, manifested in practice, interviews was the primary methodology used to achieve this. Additionally, Ngwaru (2012) also noted is the vital role that is played by parents to ensure sustainability of early learning. Regardless of the setting, that is, whether ECD care occurs in a centre or at home, the basic requirements for children to develop to their full potential are the same (Cryer, 1999).

The process for developing the questions for interviews with the ECD teachers and parents, observations at the ECD centre and profiles, involved initial reviews of literature and conversations with Network Action Group (NAG) staff members who have extensive experience working alongside community based ECD centres, parents and other non-

governmental organisations (NGOs). Once completed, the questionnaires for the ECD centre profile and interview questions for parents and teachers were tested to ensure that they work in reality, are clear and add value to the research objectives. This was a process of refinement in the structure and content of all questions that were asked.

The study took place in three locations within KZN province. In 2014, KZN had the highest child population (0-9 years old) in South Africa at 2.5 million (Statistics South Africa, 2014). A larger proportion, that is, 60.6% of children aged 0-17 in 2014 lived in rural communities of KZN (Hall, 2016). Poverty severity, which is poverty gap and weight, and the level of poverty, was also greater in rural areas than urban areas. Additionally, poverty in rural areas is more severe in poverty in urban areas (Hall, 2016). The table below shows poverty indicators for KZN province, according to Stats SA (2014).

Table 1. Poverty levels by settlement type

Query	Value
Poor people living in rural areas in SA	69%
Poor people living in urban areas in SA	31%
Poor people living in KZN as a percentage of total SA popn	26%

The three study locations provided comparative data across different districts. The first is within Ugu district, namely Izingolweni. The second location also within Ugu district is Vulamehlo. The third location, namely Msinga, is within uMzinyathi district and it is much larger than the other two local municipalities (LM) in this study. The figure below is a visual representation of the three study locations.

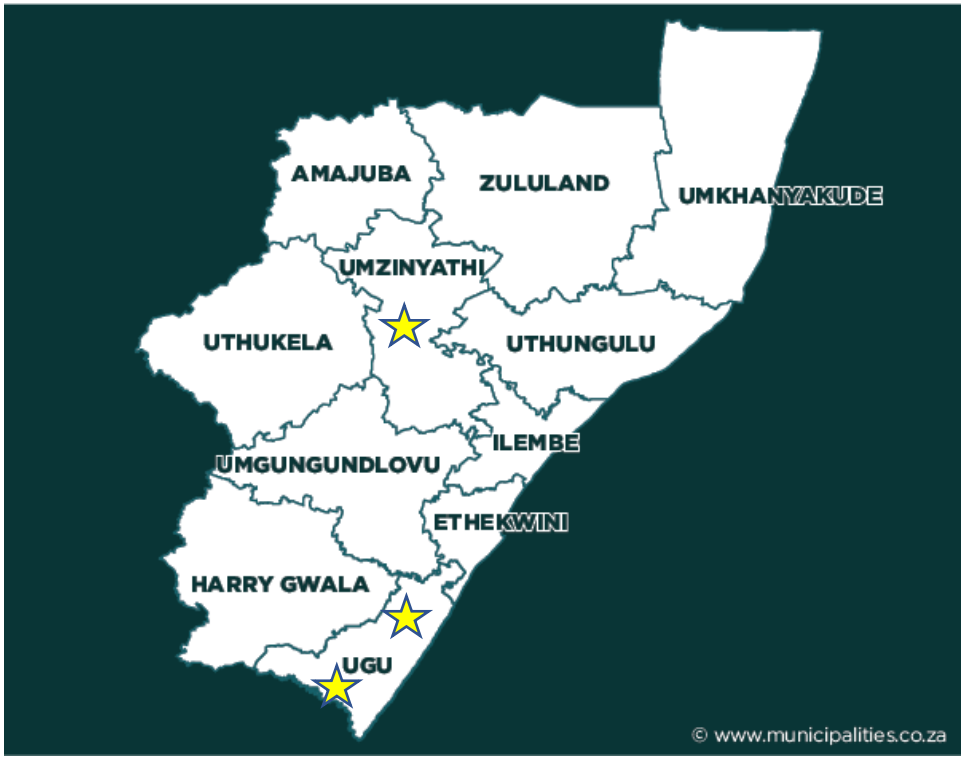

Figure 2. Map of KZN districts

Source: www.municipalities.co.za

The table above shows the landscape of ECD centres services in Izingolweni, Vulamehlo and Msinga. The table below shows the child population of each study location and the number ECD centres that are known to be operational in each area.

Table 2. Child population versus access to ECD centres

Location	Child population (0-5 years)*	No of ECD Centres
Izingolweni	8,745	52
Vulamehlo	12,349	62
Msinga	33,381	127

*Census 2011

The reasons for selecting separate locations was to control biases that may exist in Ugu district. These biases may arise due the presence of Network Action Group (NAG) in the district. NAG is a network of community based organisation, over 300 of which are ECD centres, that focuses on organisation development and ECD strengthening. It is also worth noting at this point that the figures used for the number of ECD centres in each LM are up to date figures (as of 2016) since NAG, under Ilifa Labantwana, worked with both districts on ECD massification registration system. The registration system is a key step in ensuring the necessary conditions are present in order to realise the national goal of universal ECD service provision in South

Africa (Martin, 2015). Efficient and complete registration systems are the gateway through which pressing issues like infrastructure, funding, information and planning at a district and provincial level can be resolved (Martin, 2015). Registration systems serve as the initial data entry point for ECD centre services, therefore the quality and type of data collected and the efficiency of this process is important for higher level strategy, planning and service provision in the future. A crucial learning, or assumption, that has emerged within this sector is that high staff turnover in ECD centres has a negative impact on the quality of the program. ECD teachers are not happy with the remuneration, often unregulated and likely to be inconsistent. This has a spill-over effect on the motivation, morale, level of interest and willingness to continue to work in community based ECD centres. In addition, another that leads to high staff turnover is that those who can afford to do so choose to pursue higher learning to be able to teach Grade R and earn more income.

4.3 Sampling

Part of the methodology used in an attempt to answer one of the research questions that queries whether there are any discernible differences in program quality of a state funded and unfunded community based ECD centres, it is to ensure that the sample in this study incorporate both types of ECD centres. The study included an equal number of funded and unfunded sites. The sample size in total was 40 ECD centres, 20 of these were funded and 20 were unfunded. For a mixed methodology which is largely qualitative, this sampling technique is inappropriate if the intent is to understand a phenomena and complex human behaviour (Marshall, 1996). The purpose behind qualitative studies is to describe and illuminate people's personal and lived experiences in order to gain an understanding of these experiences (Polkinghorne, 2005). Therefore, the sample selection process is more intentional in order to get a rich account and explanations of the experiences (Polkinghorne, 2005). The sampling technique that was adopted for this study was purposive sampling (Du Plooy-Cilliers, Davis, & Bezuidenhout, 2014). To get the most out of a selected sample, or to learn more about an experience and obtain a better understanding of an experience, those chosen should be currently experiencing or have previously experienced the interest area (Polkinghorne, 2005). Consequently, the criteria for selection with regards to the ECD centres, was that they are based in a rural community, were operating as a non-profit organisation (NPO), and as mentioned above, 50 percent of the sample was funded by the state whilst the other half were unfunded. These criteria were met by all centres included in the study. The technique that was used to build a sample of parents/guardian

to be interviewed was convenience sampling. It was chosen as the most suitable technique due to its main features of accessibility to a sample and respondents' willingness to participate (Teddlie & Yu, 2007). The only criterion for the sample of parents was that their child must attend an ECD centre that forms part of this study.

4.4 Research Criteria

Maxwell (1992) categorises validity into descriptive, theoretical, interpretive, evaluative validity and generalisability. In his explanation of descriptive validity, he suggests that descriptive validity can be primary or secondary. Primary descriptive validity questions whether the researcher has accurately recalled what they heard or saw. Secondary descriptive validity refers to actions or behaviour that could not be observed but can be inferred (Maxwell, 1992). As stated previously, to moderate against the occurrence of this phenomena, two people (the researcher and someone to assist in data collection) were present during the observations and interviews. The objective of this during the observations is to have a second voice to verify the chosen score (on the likert scale), and the reason behind having two people present during the interviews is for one person to conduct the interview and the other to capture responses, particularly when recording was not possible. Some interviews were recorded, others were not recorded because the responded was uncomfortable being recorded or there was no secluded location within which to conduct the interview. A recording device was used to maintain integrity of responses and acted a source for data collection.

Du Plooy-Cilliers et al. (2014) point out the subjective nature of qualitative data methods. Du Plooy-Cilliers et al. (2014) adopt different terminology in reference to qualitative methodologies; they speak of credibility, that is, the accuracy with which the researcher interpreted the data that was provided by the participants. A positive relationship exists between credibility (or internal validity) and amount of time spent with the respondents, or time spent in observation (Du Plooy-Cilliers et al., 2014). Transferability (or external validity) asks whether the same results could be obtained in a similar situation (Du Plooy-Cilliers et al., 2014). During data collection and analysis, dependability (or reliability) raises questions of the integration process; from how the researcher collected the data, how they made sense of the data and the theory that was generated from the findings (Du Plooy-Cilliers et al., 2014). Confirmability (or objectivity) refers to researcher interpretation of the data, how they got to the findings, in other

words, the extent to which the findings are supported by the data collected (Du Plooy-Cilliers et al., 2014). The question is then, how did the research findings from interviews display whether or not state funding adds any value? How was this measured using interviews? If the study were purely quantitative, in that child outcomes were the unit of measure, then it would be easier to calculate value added if we defined child quality in terms of child outcomes. However, due to the limitations of the feasibility to perform assessments of child outcomes or to track them, a combination of the time spent in observation, shared responses, expectations and experiences, a perceived value will be the method used to determine this.

4.5 Data Analysis Methods

The process of data analysis began by first preparing the data for analysis. The interviews were transcribed from tape recordings into the written word in order to get more familiar with the data collected and perform memoing. Du Plooy-Cilliers et al. (2014) describe memoing as a reflective process where the researcher engages in sense-making. Part of this sense-making was accomplished by coding interviewee responses. In some instances, tape recordings were translated into English, and much of physical notes captured during the interviews was translated into English during capture.

Analysis of the profiles was accomplished by collated all the information and carrying out simple analyses using percentages, averages, minimum and maximum values to find trends and patterns in the data and to conduct comparison between funded and unfunded centres. Apart from transcription and initial memoing process, analysis of the interviews involved creating categories for responses given for each question, making it easier to "count" frequency with which the same response was given and extracted themes from the data collected, and related these back to ECD centre profiles where applicable. Polkinghorne (2005) argues however that for research that is qualitative in nature, the unit of analysis is not the target population or distribution of experiences but of the experiences themselves of this group. The observations underwent an iterative process of construction and ultimately, within each query scoring codes or indicators were created for each measure on a likert scale. Therefore, each measure is satisfied by a number of indicators that ought to be met to meet that score. For example, Figure 3 below is an extract from the instrument that was used for observations. The extract queries hand washing practice. If an ECD centre scored "Poor" this means that teachers ensured that

the children's hands were washed either before meals only, or after visiting the toilet only. If an ECD centre scored "Good" this means that teachers ensured that children's hands were washed before all meals and after all toilet trips.

Criteria for Obs.	Very Poor	Poor	Fair	Good	Very Good
8 Handwashing	No attention to handwashing	Only washed before meals Or only after toilet	Wash hands before some meals sometimes after toilet trips	Wash hands before all meals and after all toilet trips	Wash hands before & after all meals and after toilet trips

Figure 3. Extract from observation queries

5. RESEARCH FINDINGS

Prior to active entry into the field for data collection, the assumption was that the process of data collection would be simple and seamless. It was assumed that the outcomes, based on statistics, could be predicted. Although areas may share similar characteristics and demographics, the personal experiences of individuals and communities are very different. This was evident from the first day of data collection in Msinga.

Word had travelled of someone, in this case myself, was conducting a survey on ECD centres. I was given directions to a crèche, and on arrival in the area, I was met by the chairperson of the crèche and a woman that I would later discover was the teacher. She elaborated on her story and a short time after this we were joined by several mothers and a couple of men from the community who were close by, for an impromptu community meeting in hopes that I had come to bring a solution. The roof and structure which had been used to carry out the ECD programme had been blown away by bad weather. Numerous attempts to find an alternate structure or help to rebuild the old structure had failed. Not only that, children were turned away from neighbouring centres because they too full to accept more children or they were too far to access by foot. Since the ECD centre was not registered with the Department of Social Development as a partial care facility it could not access support that way. In addition to this, it was also not registered as an NPO therefore it was unable to access donations from the private sector. This challenge resulted in time lost that could have been spent collecting data from another centre on that day. It also had a negative impact on the number parents interviewed; the initial research design targeted ten parent interviews but only nine were carried out.

5.1 Centre Profiles

The following section of the findings chapter discussed the survey data obtained from the 40 ECD centres. The data collection process began by creating profiles for the ECD centres that would form part of the sample. The profiles include basic infrastructural details about each centre, the number of teachers and children, income and fees, as well as resources. Creating profiles based on elements helps to frame the context in which the programmes function. Table 3 shows a summary of the elements that were captured about each ECD centre. It focuses only on the infrastructural elements and teacher characteristics. The table highlights that there is a

significant skills and education deficiency in ECD centres. Furthermore, a considerable number of centres function without child appropriate sanitation, electricity.

Table 3. Summary of ECD centre features

Summary of ECD Centre Features			
Item Description	**Number**	**Total Responses**	**Percentage**
Funded Centres	20	40	50%
Unfunded Centres	20	40	50%
Teachers with Matric	63	92	68%
Teachers with some ECD Training	65	92	71%
Teachers with an ECD Degree	1	92	1%
Tap on Property	11	37	30%
Jojo Tank	16	37	43%
Community Tap	5	37	14%
Food Provision	34	40	85%
Pit Toilet	35	40	88%
Flush Toilet	3	40	8%
Children-sized Toilet	24	39	62%
No Toilet	1	40	3%
Potty	1	40	3%
Electricity on Site	19	40	48%

Despite the challenges experienced during data collection, such as the one mentioned above, the target that was set to profile 40 ECD centres was still achieved. The profiles captured structural elements of each centre. Half of the centres that were profiled are funded by the Department of Social Development and the other half are not funded by the department, nor are they funded by any other entity. Of the 40 centres profiled, all save one included zero to two age range, all have three to four age group, and a little more than half (24) of the centres profiles have children five and above. The entire sample consisted of 1,989 children which results in an average teacher-to-child ratio of 1 teacher to 22 children. The national norms and standards according to the Children's Act set the guidelines for teacher-to-child ratios at 1:6 for children aged zero to eighteen months, 1:12 for children from eighteen months to three years, 1:20 for children aged between three and four years, and for children who are four to five years old the ratio should be 1:30 (Department of Social Development, 2010). For this data set it is not

possible to calculate the ratio by age group. It is worth noting that the figure recorded for number of children is the number of children that were admitted at the beginning of the academic year (2016), not the number that was present on the day of profiling or observation.

Although 85% of the total sample recorded that they have a supervisor, more often than not the supervisor performed a dual service of teacher and supervisor. I would argue, based on observations, that the primary function was to teach above performing supervisor/principal duties.

The majority of the sample (85%) provides food to the children, irrespective of external finances that are received by the centre. This suggests that a priority for community based centres is food provision. This is supported by other government efforts in basic education that provide meals in rural schools. The National School Nutrition Programme (NSNP) is a government led intervention in response to a human rights approach to meet the need and the right that children have to basic food and the right to learn (DBE, 2015). The provision of meals at school helps to break barriers to access, for quintile 1 – quintile 3 schools. These schools service the poorest 60% of the child population. In addition to access, meals increase learner retention rates and improve education outcomes (DBE, 2015). An integral part of the programme is also to provide education on nutrition and support schools to develop their own food gardens (DBE, 2015).

For sanitation, 88% of the sample utilise pit latrines as the primary type of toilet. A simple pit latrine is the most cost-effective form of sanitation and is acceptable by World Health Organisation (WHO) standards if constructed correctly.

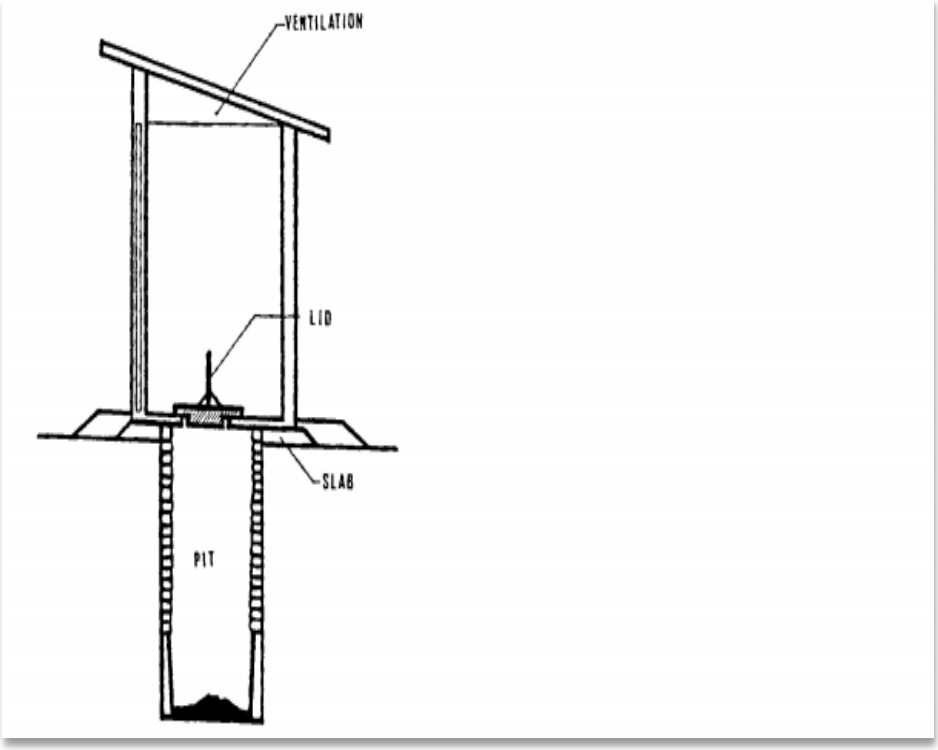

Figure 4. Simple pit latrine

Source: Fact sheets on environmental sanitation (WHO, 2017, p.17)

Figure 4 is a visual representation of a simple pit latrine. There are five key components of a simple pit latrine, that is the pit, the base, the floor, the mount (flat or raised), and superstructure (or shelter). Apart from the benefit of low cost, a pit toilet is easy to build, some components are reusable and the excrements are isolated (World Health Organisation, 2017). According to WHO (2017) guidelines, a pit toilet should be built approximated 6 metres away from the main house, at least 30 metres away from rivers, wells and springs, and at least 2 metres from the groundwater table. The pit itself should be dug as deep as 1.5 metres at a minimum and should be a width of 1.2 metres (WHO, 2017). Pit latrines can be plagued with flies; these can pick up and transfer germs that cause diarrhoea and other related diseases. Flies tend to avoid dark places and dark surfaces and are drawn to light and smells.

An improvement to counter this problem of flies and odour is the Ventilated Improvement Pit (VIP) (WHO, 2017). This version uses a ventilation pipe and a fly screen. Therefore, unlike the simple pit latrine that should have a lid over the opening at all times to control against smell and flies, the VIP should not be closed so as to allow air to flow through the ventilation pipe. The flies are as a result attracted to the light coming from the pipe, caught by the fly screen and

then they die (WHO, 2017). However, none of the centres that were profiled used this upgraded version.

Water supply is an important consideration for any household or organisation. The findings show that of the 37 responses received regarding water supply to the centres, 30% of the centres have a tap on the property, and 43% of the centres use a jojo tank as a water source, and 14% of the centres profiled have to walk to a community tap in order to supply water to the centre. A jojo tank, as is commonly referred to in South Africa, is a rain water storage tank. The benefits of collecting rain water include having a continuous supply of water, alternative to using tap water, decreases reliance on water supplied by municipalities, cost savings (where applicable) because you do not have to pay for rain water (Jojo Tanks, 2017).

The following description of results will reveal findings based on the characteristic of funded centres compared to unfunded centres. As mentioned previously, the number of centres profiled that were funded equalled those that are unfunded by the department of social development. The results suggest that the average teacher-to-child ratio for unfunded centres is better the ration for funded sites. Funded sites have 68% more children than centres that are unfunded but only 30%more teachers which leaves the ratio of teachers to children at 1 to 24, whilst the equivalent is 1 to 19 for unfunded centres. The level of education received by teachers across both categories is not very different. Out of a total of 52 teachers in funded centres, 69% have received their matriculation certificate. Whilst, 68% of teachers in unfunded sites (out of a total of 40) have received their matriculation certificates, 65% have some ECD training and 3% (1 individual) have obtained a degree in early childhood. Seventy-five percent of teachers in funded centres have some ECD training and none were recorded as having received a degree in early childhood. For clarity, for the purposes of this survey, “some” ECD includes anything from a week-long training (or less), to short courses on ECD practices, workshops, and up to NQF level 4.

Results described above regarding pit latrines suggests that most centres in rural communities use this method of sanitation. To specify, 85% (or 17 out of 20) funded centres use pit latrines and 90% (or 18 out of 20) unfunded centres use pit latrines. Additionally, since the majority of rural centres in KZN do not have flush toilets and sinks, in order to mitigate against the spread

of infection and diseases, centres have been trained in how to utilise a tippy tap for more hygienic hand washing practice.

A tippy tap is used widely in rural communities to address health care and hygiene issues which form part of South Africa's Sustainable Development Goal (SDGs) to obtain good health and wellbeing (goal 3) as well as work towards clean water and sanitation (goal 6) whilst simultaneously helping to reduce diseases that are easily avoided in children aged five years and below (UNICEF South Africa, 2016). A tippy tap is simple to make, it uses a plastic bottle (usually a 2 litre plastic bottle), a straw, and soap (a bar of soap or dishwashing liquid) (UNICEF South Africa, 2016). There are variations to the tippy tap. For instance, most of the tippy taps found in ECD centres that were profiled are either mounted on poles and none of them utilised a straw, instead, holes are made in the lid if the 2 litre bottle to allow water to escape for hand washing. For this sample, 65% (or 13 out of 20) of funded centres use a tippy tap and 70% (or 14 out of 20) of unfunded centres make use of a tippy tap. However, basins are still preferred by some, 25% for each category (or 5 out of 20).

Table 4 shows the finances of the centres, mainly in the form of income from centre fees and salaries from the government. Slightly more than 50% of the sampled centres were able to provide responses about monthly income. In this case, the monthly income only refers to income received from ECD centre fees. Minimum and maximum average monthly values were recorded for income since fee payments tend to be erratic and unpredictable. The minimum value describes a month in which parents were not good at paying fees. The maximum value describes a month in which parents were better at paying the fees. It is also worth highlighting that ECD centres fees are usually very low. Babies and toddlers are more often than not, charged different rates as shown below in Table 4.

Table 4. Summary of finances

Summary of Finances		
Item Description	**Amount (R)**	**Total Responses**
Avg Teacher Remuneration	791.70	29
Avg Teacher Remuneration (excl outliers)	677.00	27
Avg Minimum Monthly Income	995.00	22
Avg Maximum Monthly Income	1,478.00	22
Avg Monthly Income	***1,236.00***	**22**
Avg Fees (Babies)	72.00	39
Avg Fees (Toddlers)	53.00	39
Min Fees (Babies)	0.00	39
Min Fees (Toddlers)	0.00	39
Max Fees (Babies)	150.00	39
Max Fees (Toddlers)	100.00	39

The question teachers' remuneration was constructed in such a way that it queried a minimum and maximum value since experience suggests that teachers do not receive the same salary from month to month and do not receive any salary during the holidays. Based on these factors, the average remuneration for teachers in a month is R792. A second average was calculated that removed outlying figures from one centre which brought the average monthly teacher salary down to R677. The minimum salary in this centre that has considerably higher salaries is R2,000 because the salary for this teacher is paid through a learnership, and a maximum of R6,000 for the other teacher (and supervisor) because their salary is being paid by an NGO. The R6000 stipend is in line with the monthly income received by grade R teachers in KZN public schools in 2016 (Magubane, 2016).

Fees are charged differently depending on whether children wear nappies or not. Babies who wear nappies are generally charged higher fees because they require more hands-on care. The average monthly fee charged (for a total of 39 centres) for babies was R72. The minimum monthly fee for babies is zero rand, and the maximum monthly fee is R150. The average monthly fee charged for toddlers is R53. The minimum monthly fee for toddlers is also zero rand, and the maximum monthly fee is R100.

Table 5. Funded versus unfunded comparison

ECD Centre Features and Resources						
	Number		Total Responses		Percentage	
Item Description	Funded	Unfunded	Funded	Unfunded	Funded	Unfunded
Teachers with Matric	36	27	52	40	69%	68%
Teachers with some ECD Training	39	26	52	40	75%	65%
Teachers with an ECD Degree	0	1	52	40	0%	3%
Flush Toilet	2	1	20	20	10%	5%
Pit Toilet	17	18	20	20	85%	90%
Potty	1	1	20	20	5%	5%
Children-sized Toilet	15	9	19	20	79%	45%
Adult-sized Toilet	19	13	19	20	100%	65%
Tippy Tap	13	14	20	20	65%	70%
Tap/Jojo Tank	2	1	20	20	10%	5%
Basin	5	5	20	20	25%	25%
Electricity on Site	13	6	20	20	65%	30%
No Electricity on Site	7	14	20	20	35%	70%
Books	15	16	20	20	75%	80%
Building Blocks	19	14	20	20	95%	70%
Colouring & Writing Material	19	16	20	20	95%	80%
Arts & Craft Material	17	9	20	20	85%	45%
Jungle Gym	13	5	20	20	65%	25%
Other Outdoor Equipment	3	2	20	20	15%	10%
No Outdoor Equipment	4	13	20	20	20%	65%

Table 5 shows a comparison of ECD centre profiles based on whether they are funded or not funded by the department of social development. Table 5 also shows the features of each centres as well as the resources present for teaching and conducting the programme. The most notable discrepancy between funded and unfunded centres is electricity on site. The findings suggest that 65% of funded sites have electricity, whereas 70% of unfunded said they do not have electricity on site, which means that only 30% of the unfunded centres have electricity on site. If we look at each of the three areas in isolation, in Msinga 6 centres were profiled in total; 67% of the centres are funded by the department of social development, and 83% of the centres have electricity on site. In Izingolweni 14 centres were profiled in total; 50% are funded by the department of social development but only 36% have electricity on site. In Vulamehlo 20 centres were profiled in total; 50% are funded by the department and 45% have electricity on site.

The findings suggest that funded ECD centres are better off in terms of outdoor equipment like jungle gyms, slides and swings. Of the centres that were funded, 65% of them have jungle gyms, and15% have other outdoor equipment. Whereas, 65% of the unfunded centres have no outdoor equipment at all. Other resources for indoor teaching, playing and exploring had smaller variances, except for arts and craft material where 85% of funded centres had these resources, whilst 45% of unfunded centres had these resources. For the remaining resources, the results show that 75% of funded centres have books, 95% have building blocks, and 95% have colouring and writing material. The results from unfunded centres show that 80% have books, 70% have building blocks, and that 80% had colouring and writing material.

Table 6. Finances comparison

Finances				
	Amount (R)		Total Responses	
Item Description	**Funded**	**Unfunded**	**Funded**	**Unfunded**
Min Teacher Remuneration	100.00	0.00	17	12
Max Teacher Remuneration	2,000.00	6,000.00	17	12
Avg Teacher Remuneration	***930.00***	***595.80***	***17***	***12***
Avg Minimum Monthly Income	858.00	1,131.00	11	11
Avg Maximum Monthly Income	1,530.00	1,426.00	11	11
Avg Monthly Income	***1,194.00***	***1,279.00***	***11***	***11***

Table 6 displays a comparison of monthly centre income (from fees) and salaries between funded and unfunded centres. On average, based on 17 responses from funded centres, teachers receive a monthly remuneration of R930. This average is 17% higher than the average monthly remuneration for teachers in the entire sample (R792). The minimum value was recorded at R100 per month and the maximum at R2,000 per month. The average monthly remuneration received by teachers in unfunded centres is R596, based on 12 responses, which is 33% lower than the average for the entire sample. The minimum monthly value is zero rand and the maximum monthly value is R6,000. If we adjust the average for unfunded centres to exclude the one set of extremely high values (R2,000 minimum and R6,000 maximum) then the average monthly teacher remuneration drops quite drastically to R286.

5.2 Centre Observations

A total of 28 centres were included in the observation. Following initial observations to test the questions and usability, adjustments were made to the instrument to include meaning and objectivity behind each score. The observation component of the study centred on the exploration of daily programme structures, hygiene practices and the interactions between the children and teachers. For the daily programme, the main purpose of observation (because of time limitations), was to examine whether one existed or was operational, whether there was any apparent structure and planned activities for the children. All the centres followed a similar pattern in programme which consisted of a morning ring that centred around a theme such as transport or the weather, free play, outdoor play, as well as the meal times which was breakfast snack and lunch time for most centres. For a full description of each observation query and indicators for each score please refer to the Appendix 4.

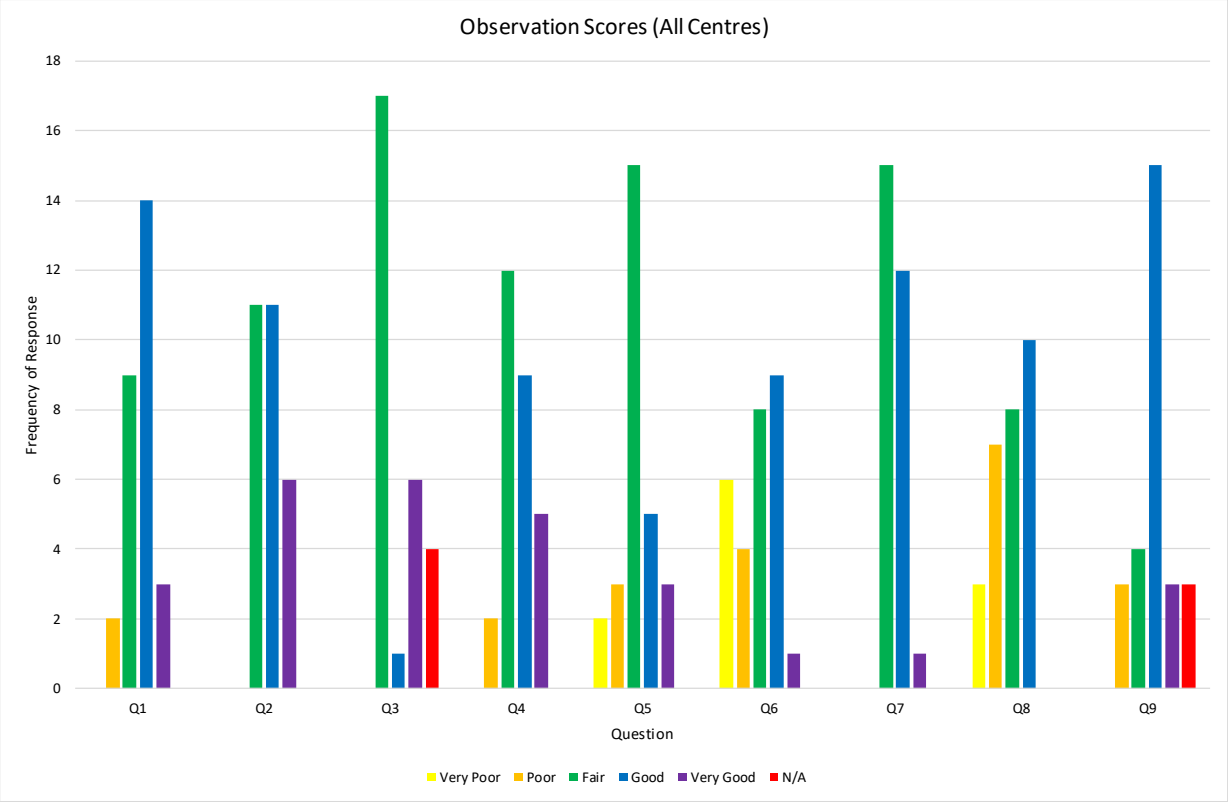

Figure 5. Scores for centre programme and ECD practice assessment

Figure 5 shows the scores that ECD centres received for questions that related to hygiene practice, interactions between children and teachers, meal preparations and child supervision. Out of all the centres that were observed, none of the centres scored “Very Poor” on Question 1, which was an observation of the daily programme. In this case, “Very Poor” means that no

programme exists at all. In general, the ECD centres that were observed received lower scores ("Poor" and "Very Poor") for hygiene practice queries.

Question 6 queried toilet trip supervision, which is more important in a rural environment because there are more possible health and safety dangers involved in using pit latrines, in particular, if the toilet seat has not been made suitable specifically for children. This question also queried hygiene after toilet trips. 10 of 28 (36%) centres scored "Poor" or "Very Poor" for toilet supervision (more centres displayed "Very Poor" hygiene). This means there is no supervision at all, toilets may be appropriately sized for children or may not be appropriately sized for children, and there is no attention paid to hand washing.

Question 8 queried solely the hand washing practice of each centre in relation to meals and toilet trips. Once again, 10 out of 28 (36%) of centres scored "Poor" or "Very Poor" for their hand washing practice (more centres displayed "Poor" hygiene). In other words, 36% of centres either pay no attention to hand washing (Very Poor) or the children only wash their hands before meals (Poor) or children only wash their hands after using the toilet (also, Poor). Question 5 saw the majority of centres receiving a scoring of "Fair". This means for 15 out of 28 (57%) of centres, on the day of observation teachers displayed passive outdoor supervision. Related to this is the supervision of children during nap time, where the results suggest that for 17 out of 24, or 71% (excluding the centres where children do not nap), children are "Supervised Sometimes". On a positive note, 15 out of 28 (57%) of the centres observed score "Good" for meal preparations. This result shows that there was a dedicated cook on the premises, a separate kitchen to prepare meals and that the cook exercised good hygiene practice in the kitchen.

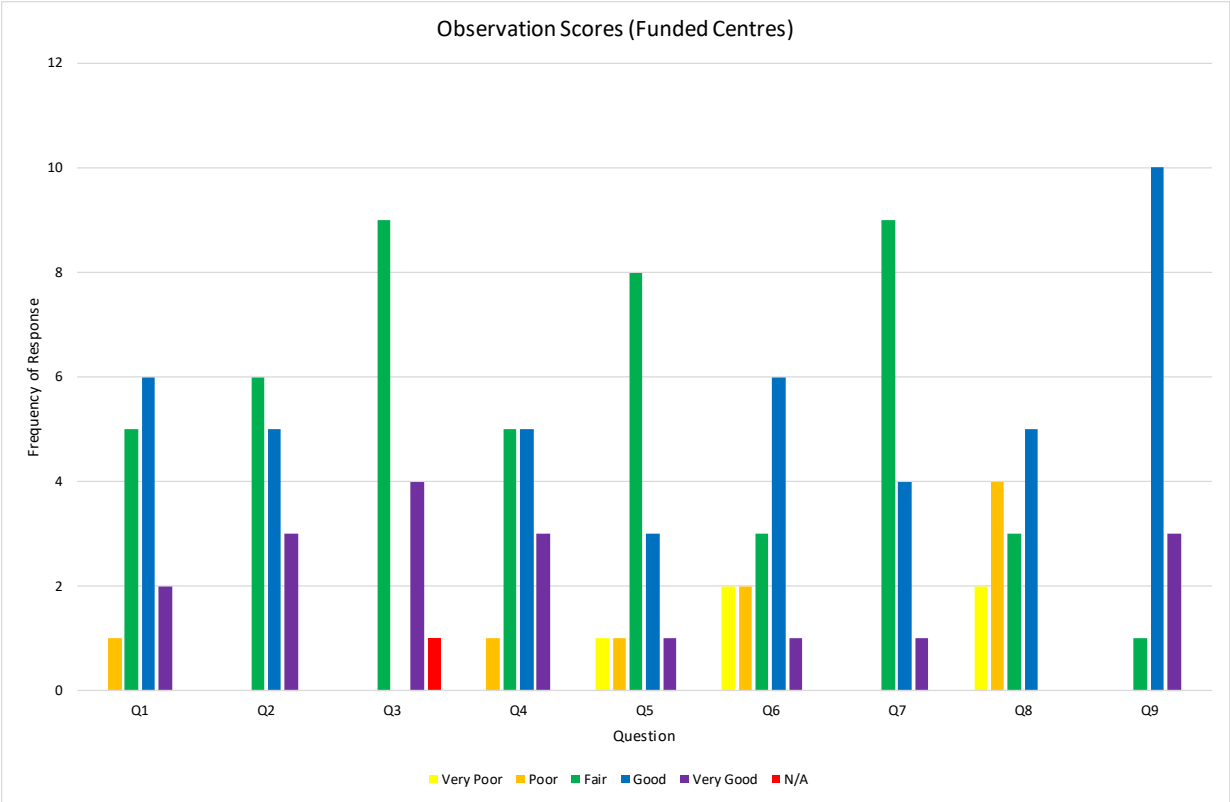

Figure 6. Scores for funded centre programme and ECD practice assessment

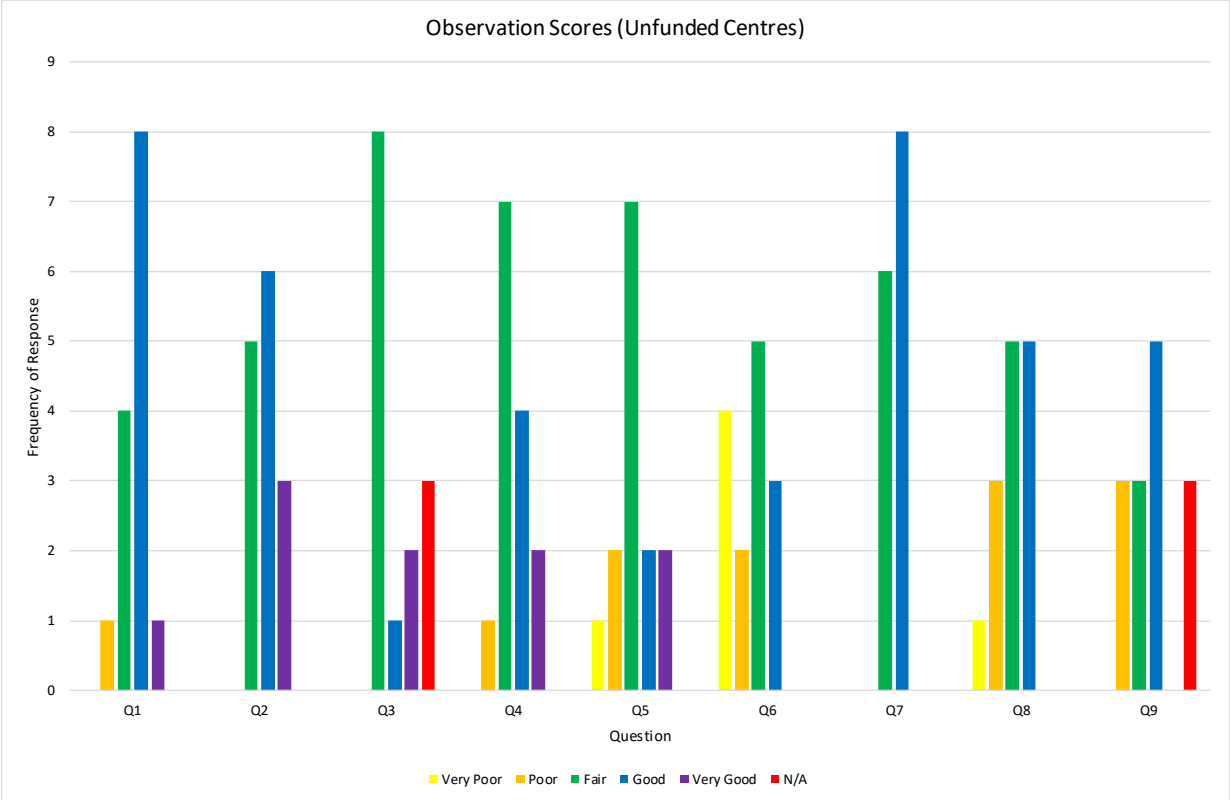

Figure 7. Scores for unfunded centre programme and ECD practice assessment

Figure 6 shows observation scores for funded sites only, and Figure 7 shows observation scores for unfunded centres only. The main difference in the observation scores was in the observation on cooking practice. This query (question 9) explored HR and infrastructural issues. In other words, it asked about dedicated staff and whether the ECD centre had a separate kitchen, as well as the hygiene practice when preparing meals. Unfunded centres experienced more staffing challenges because of financial constraints. Additionally, they experience more infrastructural issues than funded centres. The results from Question 9 illustrate that unfunded centres more frequently had either no dedicated staff to cook, or no separate kitchen, or no kitchen at all. All these challenges I would argue, are related to financial constraints. If the average income for unfunded centres is R1,200, as indicated by the responses received, prioritising dedicated staff to cook is highly unlikely. Whereas for funded centres, a certain percentage is allocated to staff salaries (to groceries and to maintenance). Both funded and unfunded centres scored "Fair" and "Good" for the remaining observation queries which suggests that effort by teachers is comparable regardless of the funding status of the centre.

5.3 Teacher Interviews

Interviews with parents and teachers form an integral part of framing the research area, in understanding the elements that feed into ECD, and are important for achieving research objectives. Interviews were conducted with 12 ECD teachers in 2 locations, namely Izingolweni (6) and Msinga (6). In analysing the teacher interviews, there are four emerging themes. Firstly, in terms of the ECD programme that is delivered at centres, there exists strong similarities in the structure of these daily programmes across all three research areas. Secondly, for a number of the teachers that were interviewed, a recurring response was that they saw their job and ECD training as a gateway career towards the ultimate goal of being a grade R teacher. Thirdly, teachers had a genuine love for children and community. This was evident in how they spoke about their students and, although teachers shared their frustrations of being paid very little for the service they provide, they recognised the need in the community. Lastly, the interviews and general observations highlighted that the majority of centres were lacking in organisational development.

It is worth noting at this point that in an attempt to find out more about teachers' understanding of ECD theories, approaches and practice, it was repeatedly a challenge to explain to the

respondent what the question was asking. This may be due to a fault in how the question was constructed, with the result that a direct translation of the question from English to Zulu may have caused unintended confusion. In spite of this, once clarity was achieved most teachers were able to explain why activities on the daily programme were included. Three of the teachers that were interviewed could not specify any reasons behind programme activities, twoof these were funded and the other was an unfunded centre. The remaining teachers spoke of emotional and social skills, physical (gross and motor skills) and cognitive development.

One teacher from an unfunded centre in Msinga, who according to the results obtained the highest level of education (a national diploma), elaborated on their daily programme by explaining that they exercise *"cognitive skills through learning about the weather, days of the week and months, by counting, learning about shapes and matching shapes"*. During indoor play like drawing, the teacher explained, it gives her an opportunity to do hand-eye coordination assessments. Finally, the teacher examines how children relate to each other in an effort to keep abreast of the children's social skills. This ECD teacher also makes use of observation books and these are updated at the end of every term and include such categories as "Isizulu", "Amakhona Empilo" and "Izibalo". When translated from Zulu to English these categories are "Zulu language", "Life Skills" and "Counting/Numbers". As a result of having up to date records of growth of development doing continuous assessments, the teacher explained that it is normal practice for her to call in the parent/s or guardian/s of a child for a discussion if something does not seem quite right. Teachers (or centres) from Msinga were the only ones that had observation books as a means to record children's growth and development (3 out of the 6 centres from this are). Unlike other teachers who expressed dissatisfaction with remuneration, this teacher did not share the same sentiments because her salary is paid by an NGO and equivalent to that of a Grade R teacher while the second teacher was getting paid through a learnership.

Many centres followed similar programmes. These consisted of a morning ring (a whole class activity that included greetings, talks about the weather and a certain theme), a second ring (which usually included rhymes, music and movement), free play (where children play), outdoor play, story time (where a teacher will act out a story and ask questions about the story to ensure understanding and engage with children) and teacher-directed activities. When teachers were asked to reflect on their centres and on themselves as teachers, fifty percent (50%)

of the interviewees identified teacher training as an area of improvement. A few others shared their desire to make better use of their vegetable garden or to even start a vegetable garden, whilst others saw a need for more resources and materials (both classroom and outdoor).

Teachers offered numerous reasons, even in informal discussion, why they desire more training and why they continue to teach although the remuneration they receive is inadequate. For some there is no alternative. If they were not teaching or looking after children at an ECD centre, they would be sitting at home doing nothing. For others, they have a desire to continue learning about ECD in order that they may be chosen to study through a learnership, which will increase their pay. Others wish to eventually qualify as a Grade R teacher and be adopted by the department of basic education to teach in a primary school (or in some cases continue to teach at an ECD centre) and receive a Grade R teacher salary.

Following this general low feeling about pay, it seemed only natural to probe further and find out why teachers continue to work for little pay, apart from the reasons mentioned above. This is where they spoke unapologetically of their love for children and love of the community and wanting to be active citizens in community development and upliftment. One teacher delved deeper and explained that a lot of children in her community end up getting caught up in bad behaviour and involved with bad things. She saw that her role as an ECD teacher was important because it gave her *"the ability to play a role in shaping the lives of our future leaders"*. She chose to be a teacher to *"help kids go down a good pathway instead of falling into bad habits"*. Another teacher used the term *"ukuz'nikela"*. In Zulu, this describes a selfless task, when an individual gives wholly of themselves. It is a sign of real dedication to an activity or task.

An additional element which was not included in the questionnaires or interviews, but is closely related to teacher salaries, is the effect of teacher salary on staff turnover rates. Howes, Phillipsen and Peisner-feinberg(2000) argue there is evidence to suggest that community based centres tend to have high teacher turnover rates.

The final theme which arose from the interview data is a suggested weakness in organisational development. For instance, there appeared to be no clear job descriptions, more centres had no

records of children's growth and development, only two (2) centres had some form of a discipline policy and lastly, most centres only hold meetings with parents if a need arises. However, one teacher stated that they encourage parents to come and visit centre and observe their programme.

5.4 Parent Interviews

In analysing the parent interview data, there were three emerging themes. These include the primary reason for sending children to an ECD centre which, for most of the parents interviewed, is safety. The second theme is the seemingly transactional relationship that exists between the ECD centres and parents. Thirdly, the nature of ECD at home and how parents see or understand their role in their child's development. Most of the parents interviewed put safety from child predators as the primary reason why ECD centres are in existence, that is, protection from relatives and other men in the community. According to a 2010 report published by the KZN Department of Community Safety and Liaison, the issue of child safety and crimes against children in rural communities is an area that requires more research. Particularly more research on whether there are certain characteristics of rural communities that make children from these communities more vulnerable and more likely to be victimised. Child sexual-abuse of rural children for example, is argued to occur as a result of "powerlessness and poverty of rural children within the context of the socio-economic challenges facing rural areas. It is believed that the sexual abuse of rural girls is accentuated by the structure of the rural family, with young men in particular not receiving adequate guidance as they mature, particularly in relation to gender relations and their own sexuality" (KZN Department of Community Safety & Liaison, 2010, p.16). The report argues that crimes against children often remain concealed to people outside of the community, often occur within the home and amongst peer groups which make it difficult to intervene with preventative measures (KZN Department of Community Safety & Liaison, 2010). Crimes against children remain out of public attention because of a lack of resources that provide children a safe environment to report crimes and to receive the help they need, be it governmental resources or civil society (KZN Department of Community Safety & Liaison, 2010). Secondly, it is difficult for children to report a crime committed against them because the perpetrator is someone they know and the social structure does not allow to children to have a voice. Furthermore, many children do not recognise that a crime has been committed against them (KZN Department of Community Safety & Liaison, 2010). The objective of a development approach to child care and protection is to create happy environments for children

and positive experiences, with well-functioning adults and family members (Unicef, 2009). ECD centres (referred to as crèches) form a critical component to this developmental approach of the Children Act's to strengthen families and communities (Unicef, 2009).

Most parents also highlighted that children have an opportunity to learn, grow and develop at an ECD centre. A parent made the following statement;

"La ngithanda ukuthi ukuthi abantwana bayafunda. Yabo la ekuletheni kwami kokuqala bengizitshela ukuthi bagada nje abantwana. Mayefika ekhaya esesho izinto abazishoyo ngiyabona ukuthi bayafunda."

The parent above explains that when she first sent her child to the centre she assumed that all they do is look after the children while parents are at work. But she was pleasantly surprised when her child would come back home and repeat everything that she learnt at the ECD centre. For working mothers, the centre provided much needed day care. A couple of parents also noted that children learn the difference between good and bad behaviour at ECD centres.

"Nokuthi ifunde nje ngoku-wrong noku-right ngoba uma ihleli nomuntu omudala, mhlawumbe ekhaya kunabantu abaphuzayo abakhuluma noma eyiphi i-language. Uma ise crèche iyakwazi ukufundiseka ikwazi loku akukhulunywa, loku kuyakhulunywa."

The parent above explained that a child learns what is wrong and right, and illustrated this by suggesting that perhaps a child lives with older people at home who drink a lot and bring up bad topics or use bad language. However, if a child attends a crèche (ECD centre) they can be taught what is suitable for children to talk about, and what is not suitable for children to discuss.

From the point of view of the parents, the ECD centres functioned well but if asked, they would be willing to extend a helping hand if it was within their capacity. When asked if she has any idea what constitutes the programme or what happens there on a daily basis, one parent responded saying *"Angisebenzi e-creche. Ngingum'zali"*, which translated is "I don't work at the creche. I am a parent". Most parents feel that they have done their part if they bring their children to the ECD centre. From the perspective of the ECD centre, most teachers also pointed out that parents have little to no involvement in the centre. However, when asked whether they would like parents to be more involved, they all said yes and the most common suggestion as to how parents could be more involved was that they would like to see parents coming to the

ECD centre to visit and see what the daily programme looks like. Other responses included volunteer time, in the garden for example, or for parents to share their concerns more often, and for parents to be better at paying school fees. If we refer back to the profiles that were completed, the results (from 22 responses out of 40) suggest that the average monthly incomes from fees, according to teacher perceptions, is R1,236. The average minimum income (when parents are not good at paying fees) is R995 per month and the average maximum monthly income is R1,478 per month. For funded centres the result is an average income of R1,194 per month, whilst the average income for unfunded centres is R1,279.

The parents that were interviewed responded positively when asked if they saw themselves as a key role player in their child's development. For the majority of the respondents, the primary method in which this role manifests is that they ask their children about what they learn at the ECD centre on a daily basis. One parent suggested that taking their child to an ECD centre was her role. One other parent said reading stories at night and spending quality time together as well as doing household chores together. Only two of the parents interviewed said that they have books at home that they read to their child in the evenings. All the remaining parents stated that they do not have any books at all in the home. However, one parent (a grandparent who is the primary caregiver) explained that although there are no books at home, she does share what is known in Zulu as "izinganekwane" with her grandchild. These are tales that nowadays only the older generations share with little children. They may be likened to fairy tales or folk tales, and there is usually a moral or lesson to behind each tale.

One of the nine parent interviewees responded notably differently to all the other parents that were interviewed. She appeared to be more engaged with this concept of early development and was able to speak of its importance in a very practical manner. The next question to ask then is what was different about her? A few things did jump out during her interview, for example, in relation to the relationship that exists been herself and the ECD centre:

"Umuntu angathi, e-crèche ngingangachaza ngithini? Kimina kufana njengase khaya ngoba kahle kahle awupheli u-2 days ngingayi e-crèche. Ngesinye isikhathi ngike ngichithe ngisho u-30 minutes to 45 minutes ngibhekile izingane, ngihleli nazo. Mhlawumbe knweniwa ukuthi vele iqalwa i-creche ngangivele ngisebenza khona. Kodwa ke njenge crèche vele engaxhasiwe u-

government, siyathanda ukuza sibheke ukuthi kuqhubekalani, yini mhlawumbe esingasiza ngakho. Nok'bonisana nje. Kanti nabantu abasebenza khona bangabantu ababonisekayo"

In the extract above she explains that the ECD centre is like a second home for her because two days do not pass without her going to visiting. She can spend up to 30 to 45 minutes at the centres with the children. She clarifies this by saying that she is possibly more involved in the ECD centre because she was part of the team when it was first established. On top of this, due to the fact that the centre is not funded by the government, it is important to check on them regularly and see if there is anywhere we can help. Lastly, she adds that the staff at the centre are open to receiving advice.

5.5 Conclusion

The results give a glimpse into the experiences of teachers, parents and to some extent the experiences of children within an ECD programme in the chosen locations. The physical environment of children is not the one suggested by quality measures, assessment or evaluation tools from the developed world. However, this is not an indication of the level of care, stimulation and warmth that a child receives at an ECD centre, although it is a point of discussion.

The results suggest that there are funding differences are mostly visible in physical environment i.e. jungle gyms were found to be more prevalent in funding centres, and resources i.e. there was more teaching material in funded centres, as well as in teacher remuneration. The results also showed that teachers who work in funded centres received higher salaries, and that although the discrepancy in income from school fees between funded and unfunded centres was small, unfunded centres received more from parents than centres that are funded for salaries, groceries and maintenance. Finally, results from parent interviews suggest that there is an opportunity for parents to play a more active role in either ECD in the home or partner with ECD centres in order to fill the gaps that exist as identified by ECD teachers.

6. RESEARCH ANALYSIS AND DISCUSSION

The dissertation set out to achieve the following objectives; i) to investigate the impact of elementary and latent conditions on quality ECD, including structural factors, HR factors (salaries, role responsibilities, job training, working environment and management practice), vital ingredients in ECD programmes, and the role of parents; ii) to examine the correlation between public funding and quality ECD; and iii) to explore ways in which public funding can be utilised to improve quality ECD, referring to anything from distribution of funds, to a monitoring and evaluation tool.

Consequently, the following section will focus on uncovering meaning behind the themes that were discovered in the research findings as they form the foundation of developing an appropriate and effective M&E model for ECD in the context of rural, low income communities in South Africa, that can be deployed by government agencies, NGOs and funders in working together to solve a key and complex issue. The discussion will be mapped out into categories that fall into service provision (the current state of the service being provided to parents and children in the chosen communities), the teacher interviews, the parent interviews, as well as the potential implications these variables may have on child outcomes. Further examination of these overarching categories will look at access to ECD centres, quality of the ECD programmes and organisational development within the ECD centre.

6.1 Service Provision

Badat and Sayed (2014) present an analysis of the state of education in South Africa within which they suggest that 20 years after democracy it is still defined by persistent differences in education quality, injustices, a class-based system and poor academic performances. They argue that the most evident display of unequal access and quality is in early childhood education and pre-primary schooling (or Grade R). According to Badat and Sayed (2014, p.135), “access to good quality early childhood education is arguably the most important equity measure that can be taken to strengthen South Africa’s educational attainments”. Although the ECD is provided by for-profit private organisations, non-profit community-based organisations (CBOs) or non-governmental organisations (NGOs) which can access subsidies if registered, the view is that these services have not extended far enough to reach the most vulnerable children in the most rural parts of South Africa (Badat & Sayed, 2014).

Badat and Sayed (2014) go on to suggest that finances may be another barrier to entry for some children. However, according to the research outcomes in this dissertation, the highest fee charged in the 40 centres that were profiled is R150 for babies and R100 for toddlers, the lowest fee charged is no charge and on average, the monthly charge is R72 for babies and R53 for toddlers. This indicates that in terms of school fees, money may not be a barrier to accessing these services because the fee is very low. Additionally, several teachers argued that parents default regularly on fee payment but since centres are community based it would be culturally inappropriate to turn away children. Alternatively, there may be other costs like transportation to the centre or providing a snack box everyday which deter parents from sending their child to a centre. Suggesting therefore, that there are other factors at play that may better explain why children are not accessing or attending ECD centres. Although fees in the research findings presented here appear to play no inhibitory role in accessing ECD centres in rural communities, the provision of quality service is unequal and unevenly distributed, which means that the poor cannot access the highest quality of ECD care and education due to high fees and geographic location (Badat & Sayed, 2014).

Badat and Sayed (2014) also argue that a critical focal point of the new government (free and democratically elected post 1994) was to refinance the education system so that resources were more fairly distributed instead of favouring the white child so heavily. Nevertheless, increased funding and reallocation of resources has not addressed quality issues nor has it redressed the effects of historical discrimination (Badat & Sayed, 2014). Corresponding findings could be identified in the study at hand: that the funded centres display no drastic differences between funded and unfunded centres in terms of the quality of infrastructure, teacher qualifications, classroom practice and centre management against unfunded centres. Additionally, in cases where funded centres outperformed unfunded ones, in staff salaries and resources for example, these centres (funded) are still not comparable to private ECD centres in middle to high income areas.

According to the National Curriculum Framework for early childhood, effective ECD practice should focus on the family as the primary and first influencer for child values, social behaviour and emotional skills, encouraging play, emphasising the role of ECD teachers as individuals

who observe and respond appropriately to the development needs of children and guide them through the learning process (DBE, 2015). The framework also focuses on inclusivity, and the importance of teachers' ability to identify children with special needs or any other obstacles to learning and development. The framework recognises and promotes diversity of language and culture, stresses the importance of children's rights and emphasises allowing children the opportunity to reflect between transitioning from one learning experience to another as well as during the experience.

Most of the ECD centres that were observed or profiled shared a lot of similarities in the structure of their daily programme (although a full day was not observed). The most important aspect of the programme was to examine the interactions between teachers and children, and to a lesser extent (due to time constraints), child-to-child interactions. The National Curriculum Framework comprises of six early learning and development areas, which are well-being, identity and belonging, communication, exploring mathematics, creativity, as well as knowledge and understanding of the world (DBE, 2015). In terms of well-being; the observation was made that in general children were well fed since meal provisions were applicable to most centres. Also, children were encouraged to play outdoors (even when no outdoor equipment was available). However, health and hygiene was not promoted well or consistently across the sample involved in the observations. Looking at the aspect of identity and belonging, the extent to which teachers could engage with children individually and support them through their forming identities and finding their place in the world is impacted by the amount of time that teachers dedicate to an individual child. Teachers who formed part of the observation sample often performed numerous roles and responsibilities without a teaching assistant, and even beyond teaching activities at times. This means that there is less time available for individual child attention. In some cases, the observations suggested that teachers were either untrained on how to respond to children's needs, or they were trained but did not know how to implement this training in the classroom. Regarding the development area of communication, the ECD centres placed a lot of emphasis on storytelling accompanied by visual aids, encouraged interaction from the children, repetition, as well as motivating the children to create and tell their own stories. One prevalent limitation relating to communication across the observed sample is the extent to which teachers guided children in exploring mathematics and creativity was seemingly limited by resource availability and training on how to find alternate ways to explore these areas.

Attachment theory supposes that the quality of adult relationships remains constant in a child's life and also assumes that it is a bilaterally constructed (Howes et al., 2000). Howes et al. (2000) suggest that the ability of children to adjust in social situations influences the quality of the teacher–child relationship. For example, children who are "socially competent", who are agreeable and compliant, tend to build strong and positive relationships with teachers (Howes et al., 2000). In contrast, children who are more difficult, noncompliant and unsociable tend to struggle to build good relationships with their teachers (Howes et al., 2000). Since attachment theory is reliant upon both parties' responses, for teachers the assumption is that it will be easier to build a positive relationship with children who are more sociable and compliant than children who are withdrawn and difficult. This dynamic tests teachers' willingness and ability to overcome such challenges.

The observations made during this study about teacher and child interactions suggests that for the most part teachers have positive relationships with the children. Interactions were measured against the criteria of using positive language, managing the class successfully, whether the teacher is fully engaged and present during classroom activities and during other activities, whether there is mutual respect between teacher and child, whether all children are involved in activities, and whether there is an appropriate level of discipline at the centre. According to the National Curriculum Framework this should be discipline that is not too harsh and that does not include physical punishment (DBE, 2015). Additionally, the National Curriculum Framework emphasises the importance the teacher's role in guiding children through the learning and discovery process, and national policy on ECD centres stipulates staff-to-child ratios and the importance of appropriate resources to enable skills development. The results from the observations carried out in this study were influenced by the classroom size (number of children in each class) and the resources available. For example, during an arts and crafts session in one centre, the teacher demonstrated how to use the play dough one table at a time because there was not enough material for all the children to participate at the same time. This means that the other groups waited in their chairs while the demonstration made its way around the classroom. Nevertheless, and based on the observations made in this study, teachers in general had positive relationships with children. In other words, children responded well to instructions from teachers in the classroom and in the playground.

6.2 Teachers

A first and major issue for teachers is remuneration. The research findings from this study have shown that teacher salaries are very low, and also much lower than the newly proposed minimum wage in South Africa, regardless of the ECD centre's funding status.

The national minimum wage, which is to come into effect from 1 May 2018, is set at R3500 per month (Ensor, 2017). Presently about 6.6 million workers earn less that this newly proposed minimum wage (Ensor, 2017), including ECD teachers in this sample study, who on average earn R792 per month for full time work. Centres that are funded by the state on average earn slightly more at R930. However, teachers continue to show up to work and display an interest in their work and love for the children they teach, showing that teachers are motivated to work despite very low levels of pay. Ryan and Deci (2000) argue that individuals are either positive, action oriented and engage with the world or they disengage and remain passive; much of this is a result of their social environment. They argue that it is human nature to be curious, to want to learn more, to acquire knowledge, to use their natural gifts or talents and to grow. For these authors, motivation is all about initiating action with intention that is purposeful (Ryan & Deci, 2000).

Self-determination theory (SDT) is defined as "an approach to human motivation and personality that uses traditional empirical methods while employing an organismic meta-theory that highlights the importance of humans' evolved inner resources for personality development and behavioural self-regulation" (Ryan & Deci, 2000, p.68). In other words, it is concerned with examining an individual's intrinsic desire for growth, what psychological needs they possess and the necessary conditions that must be present for them to develop the right personality traits and self-motivation (Ryan & Deci, 2000). These psychological needs, as identified by Ryan and Deci (2000), include competency, relatedness and autonomy. The view is that these psychological needs are vital for innate affinity to growth, personality formulation, social development and general well-being. SDT is also concerned with external factors that can inhibit or slow down an individual's self-motivation level, well-being or their social functioning (Ryan & Deci, 2000).

Self-determination theory provides a basis to further examine responses shared by the teachers and to develop insights into the types of motivation fuelling their behaviour. Firstly, the findings from this study indicate that many of the teachers are intrinsically motivated, expressing their love for children, love for teaching young children or love for the communities in which they live. As a result, their motivation for the activity outweighs the nominal (monetary) rewards offered by the position, which they perceive to be lacking or not matched with the amount of work they put in. Secondly, there are some teachers who exhibit extrinsic motivation. The findings from the research suggest that a number of teachers sought to achieve outcomes for themselves; they were motivated to continue teaching at an ECD centre and continue training in hopes of becoming a grade R teacher and get an increased salary. This suggests that, if qualified teachers are drawn to primary schools because of better salary prospects, the community based ECD centres will continue to face challenges of quality improvements.

One supervisor (who shared teaching responsibilities) explained explicitly that they struggle to retain teachers because they are not trained or in the process of training. In other words, when the teachers are not trained in ECD, it is more difficult to retain them because they do not believe that doing this work has any future prospects. In contrast, trained teachers understand the work and have hopes of progressing in their teaching careers. Another aspect of this extrinsic motivation stems from the social environment in which the ECD centre operates; some teachers argue that the alternative to teaching at an ECD is sitting at home. This could also be seen as a motivation if the teacher finds no intrinsic value in teaching at an ECD centre or in the remuneration for the activity.

Organisational development is a growing area of research and practice. It is focused on helping organisations to be more effective and efficient by developing the people within the organisation, as well as the processes and structures. Lentfer and Yachkaschi (2009) examine the role of organisational development in CBOs in Sub-Saharan Africa. CBOs have for decades provided vital services in communities where the government has fallen short to deliver on service provision. According to Lentfer and Yachkaschi (2009), traditional approaches to capacity building that look to western ideas and methodologies to improved assumed skill shortages and gaps in an attempt to improve the performance of CBOs has not proven to be as successful. Lentfer and Yachkaschi (2009) argue that, within the development sector, there is still a lack of understanding about the needs of communities and how best to meet these needs

and the skills that are inherent in CBOs, and how best to bring in capacity development alongside these already existing skills without losing touch with communities and staying true the communities' needs (Lentfer & Yachkaschi, 2009).

The research conducted for this project showed that the ECD centres display a lack of the organisational development described in the literature on organisational development and traditional business thinking in a number of areas. Firstly, staff members had no job descriptions or documentation detailing roles and responsibilities. In general, staff members were assigned roles but in cases where there was a teacher and one other staff member then roles were shared or they would rely on volunteers. Secondly, when asked to produce a discipline policy, teachers either did not know what a discipline policy was or simply explained that they did not have one in writing. This is not to say, however, that teachers did not enforce discipline or that it was inappropriate or not aligned with national guidelines. Although centres tended to have attendance registers, a number of centres did not take attendance on the day they were profiled or observed. There could be various explanations for this, such as the presence of the researcher, which can upset normal practice, or the timing (close to school holidays) of the data collection.

Thirdly, teachers were asked during the interview whether they kept a record of each child's development. The majority of teachers (67%) said they did not keep a record of development. Of course, this is not to say that they do not understand childhood development and the milestones that children achieve during these formative years. However, their inability to produce records does call to question their practice in the classroom. 25% of the teachers mentioned observation books but only one teacher was able to show evidence of up-to-date records. One teacher mentioned that they give a report to parents once a year. Against this record of practice, Schunk notes that "at all grades teachers should evaluate the developmental levels of their students prior to planning lessons. Teachers need to know how their students are thinking so they can introduce cognitive conflict at a reasonable level, where students can resolve it through assimilation and accommodation" (Schunk, 2012, p.240).

Lastly, teachers were asked about occasions in which they would communicate with parents, whether they have parent-teacher conferences or meetings, and how often parent meetings are held. Once again, most of the teachers responded in the same way, saying that they

communicate with parents if something arises, either an issue with their child or if the CBO committee members have something to discuss with the parents. 83% of the ECD centres indicated that they have regular meetings with parents such as once a term or twice a year. They did suggest however, that there was usually poor attendance from parents at these meetings. During the interviews, teachers expressed concern over income generation. Many centres point to parents' inability to pay school fees on time or at all. One unfunded centre expressed interest in selling baked goods out a little stall just out of the gates of the centre in order to generate income for the crèche.

Interviews with teachers and parents, as well the observations with teachers, demonstrate the complexities present in a community structure; for example, teachers working for extremely low pay, children who continue to attend an ECD centre even though parents default on payment, low centre fees, and centres that continue to run and feed children despite limited funds. Havemann, Heinz and Struck (2009, p.1) argue that "uncovering this community structure is one of the most important problems in the field of complex networks" and that inherent characteristic of a complex network is this community structure. The difficulty in unravelling community structures arises because communities tend to be hierarchical, which means that one small network builds a bigger network group and this network goes on to form an even bigger community (Havemann et al., 2009). However, the authors argue that these hierarchies are conducive for building efficiency within the organisation. The second factor which makes identifying community structures elusive is that people often belong to more than one social grouping or community which causes an overlap and thus adds complexity (Havemann et al., 2009).

Lentfer and Yachkaschi (2009) offer an alternate approach to building capacity in local communities. Firstly, to establish an appropriate organisational development approach for CBOs, it is important to understand what makes them different from other organisations (Lentfer & Yachkaschi, 2009). Because CBOs are a direct response to a community need, many of their resources are also sourced locally, from mobilising individuals and community resources. For example, teachers suggested that they relied on volunteers to support the running of ECD centres. Another trait born out of the fact that they respond to community needs is that often a CBO is started as a response to one need but as time goes on it ends up addressing more than one need, which is especially true for CBOs that work with children. For instance, ECD

centres in rural South Africa, as in other countries, are borne out of a need for day care services. However, and secondary to this need, the study results unveiled that ECD centres address child hunger and nutrition needs in communities since many centres, funded or unfunded, feed children at least one meal a day, and in some cases feed children breakfast and lunch. Additionally, centres provide a safe place for children to stay where they are not vulnerable to people and things that may cause them harm. From an outsider's perspective, CBOs may lack structure, clearly formed roles and formality in the traditional sense. However, this may be advantageous in dealing with crises and situations that require quick responses. There is also social strength in a group of individuals coming together to agree on a shared goal and shared values.

On the other hand, a CBO's connectedness with the community has been shown to be a point of conflict in relations with donors; for instance, the pressure to meet donor requirements in the form of timelines, programme delivery and reporting, whilst staying true to community needs and accountable to community members. Based on experience, Lentfer and Yachkaschi (2009) argue that individual training does not work to transform CBOs. They would suggest the adoption of a more fluid approach that is focused on processes is suitable for this type of environment. For instance, training individual teachers hasn't automatically translated into high functioning and quality ECD programmes either because teachers do not know how to interpret what was learnt in a training session into practice in their setting. Secondly, interviews with teachers revealed that a number of them pursue training opportunities and formal qualifications in order to transition out of the ECD centre. Capacity development needs should also be defined internally by the CBOs as a response to community needs, as opposed to being defined by external forces that have no understanding of context (Lentfer & Yachkaschi, 2009). CBOs may feel the need to conform to external pressures in hopes of receiving much needed funding. Intangible dimensions like attitude and agency are arguably more important and essential to the survival of a CBO and its ability to grow than formality in structure, skills and tangible resources. Shared roles and responsibilities were observed in a number of ECD centres. In a centre in Msinga for example, the elderly woman who tended to the garden also helped the teacher to prepare porridge for breakfast and helped to supervise the children while they ate. In another example from Izingolweni, food preparations and caring for babies (who are still in nappies) was an activity that was shared amongst the volunteers. The supervisor (and teacher)

of this centre said she refers to the staff as volunteers since their pay is small and fluctuates depending on whether or not parents pay the crèche fees.

6.3 Parents

Understanding the importance of language differences is growing in research, particularly for qualitative research. “Language is central in all phases ranging from data collection to analysis and representation of the textual data in publications” (van Nes, Abma, Jonsson, & Deeg, 2010, p.313). Research of qualitative nature sets out to make sense of, and put meaning behind an individual or group experiences (van Nes et al., 2010). The relationship between language and the experiences of a study population can be thought of in two ways; language can be used as a means to convey meaning, additionally, language also has the power to determine how meaning is formed (van Nes et al., 2010). It is inherently difficult to capture in full the meanings of individual and group experiences into text. The process of translating lived experiences is a complicated one that may involve metaphors and narratives that are more easily understood by who are native speakers of the language or may be culturally specific (Lakoff and Johnson, 1980 in van Nes et al., 2010).

Taking into account these complexities of language, interview questions were constructed in English and not translated to Zulu beforehand. Van Nes et al. (2010) note that translation requires interpretation by the researcher. This has to be carried out in such a way that the target audience understands the original meaning. This is true for the first phase of a qualitative study as well for later stages (van Nes et al., 2010). This leaves a gap for mistranslation of interview questions and may call to question the validity of the data. Every time the interview is conducted, the questions will be translated slightly differently. This may be immaterial for the set of questions in these interviews but is something to be aware of in future.

The first set of interviews were with parents. Parents’ concern over safety was the primary reason for sending their children to an ECD centre. This is not surprising given the rural community and country context. Although the primary focus of the interviews with parents was on the early learning environment and the kinds of opportunities parents give to children to develop and the partnership that exists between parents and the community based ECD centre,

it is worth exploring further why 67% of parents said they send their chid to an ECD centre for safety and security reasons. Parents stated that,

"It is safer to send my child to an ECD centre than asking a neighbour, and because I can't afford a nanny".

"No harm comes to the children while at an ECD centre".

"Nokuthi zi-protect-theke njengalezi. Okanye kutholakale ukuthi zihlala nabantu abadala, izingane zises'koleni noma omabazo bases'koleni. Umzali 'mengay'boni egcekeni, uma ise crèche i-safe".

The last parent suggests that if children are at an ECD centre, or crèche, then they are protected. She expresses her belief that, because other children in the family are at primary school or high school, or young mothers are at work, the alternative is that the child is at home with elderly people. If the child is at a crèche there is no need to worry about not seeing your child in the yard because you know that they are safe.

According to an in-depth report published by Stats SA (2016) for the period between 2011 and 2015, most assaults and sexual offences were committed by people who are known either in the community or known to the victim. In 2010/11 a total of 54,225 crimes against children was reported to the South African Police Services (SAPS) (UNICEF South Africa, n.d.). Of these reported crimes, over half of them were sexual offences (UNICEF South Africa, n.d.). Also, one in three parents admitted that they use harsh forms of discipline with their children. There are laws in place to protect children (women and men) against such crimes, however, the implementation of these laws as well as ensuring adherence to the laws is far more difficult in practice. Moreover, social and environmental factors like poverty, gender inequality and drug and alcohol abuse only exacerbate the problem and make it more difficult to overcome (UNICEF South Africa, n.d.). This context explains why, in their interviews for this study, parents prioritized safety in their decisions to send their children to ECD centres.

Why and how are children at risk, and why are children vulnerable? There are numerous factors that put children at risk, some are innate and others are environmental. Firstly, girls are assumed to be at greater risk of being sexually abused and children with disabilities face more risk of being victims of a sexual offense (Artz et al., 2016). Evidence from South African research also

demonstrates that there are high risk factors within the family because most sexual abuse committed against children is done by a family member (Artz et al., 2016). Cultural beliefs about the position of children in society and about gender can act as a risk factor (DSD, DWCPD, & UNICEF, 2012). If children are viewed as not having equal rights to adults, males in particular, this is an opportunity for child abuse to remain hidden (DSD et al., 2012). In addition to this, if a child is living in a violent home, this includes domestic violence or harsh punishment towards the child, which leaves them at a greater risk (Artz et al., 2016). The study also suggests that, when a child lives away from at least one biological parent and if a parent abuses substance, children become more vulnerable and are therefore more likely to be at risk of some form of abuse (Artz et al., 2016). According to the general household survey, only 32% of children under 18 years of age lived with both biological parents, 39% lived with their mother but not their father (DSD et al., 2012). Conversely, 4% of children lived with their father, but not their mother (DSD et al., 2012).

Another primary purpose for ECD centres, as identified by parents, is that they provide vital day care needs for them. Yet according to ECD centres, some parents are either not willing or able to pay for this service. When teachers were asked in what way they would like to see an improvement in parental involvement, one teacher stated that parents should, *"share their concerns, be better at paying fees, and attend parent meetings"*. Another teacher explained that *"a few of them have issues when it comes to paying fees"*

There is evidence to suggest that high parental involvement plays a key role in influencing cognitive development in the home environment but also outside of the home, and is beneficial for children, teachers and the school (Schunk, 2012). Some things which have been demonstrated as having positive effects include regular contact from parents with the school to find out about their children, attendance at school events and meetings, transferring educational values and the importance of effort to children, active participation in homework and projects or checking that these have been done.

ECD teachers interviewed as part of this study expressed their desire for parents to improve their attendance at parent-teacher meetings so that they can be aware of what is happening at

the ECD centre. The type of involvement, as demonstrated by the research findings, manifests in a different way than literature from developed countries. One teacher explained as follows,

"Bazos'siza la engadini, njengoba sebeme kanjena nje…Bazos'siza nje. Kani siba nes'khathi sokuthi kuphele amanzi. Kona bayas'siza ke ngoba baye bathi mebe fika mhlawumbe si-send-de iincwadi ntambama sithi anis'size. Bayafika abanye bewaphethe amanzi yabona nje, int'enjalo nje…Mhlawumbe bephethe u-2L, kanjalo nje. Bayas'siza. Kodwa singathanda bake beze engadini, bas'washele izingubo lez'esiz'washile mhlawumbe, singajabula"

The teacher explains that she would like parents to volunteer in the vegetable garden and help out at the centre because there are staff needs. She goes on to say that parents do support them in cases where the centre runs out of water. They send letters home with the children and they come back with a bottle of water. She suggests that although parents get involved, and lend a hand in this manner, their priority would be the garden and help with washing children's blankets that are used during nap time.

The results of this study show that 17% of the teachers interviewed said there is no parental involvement in the centre, 42% said there is little to no parental involvement, 17% said they work very closely with parents, and the remainder (24%) said parents are willing to help when asked or if a need arises. The needs that ECD teachers identified in which parents could be involved included volunteering at the ECD centre, attending parent meetings, sharing in the concerns of the ECD centre, visiting the centre to understand how it runs, and that parents should be better at paying fees. Schunk (2012) also notes the importance of parental involvement in shaping children's self-regulation, defined by Zimmerman (2000) in Schunk (2012, p.400) as "processes that learners use to systematically focus their thoughts, feelings, and actions, on the attainment of their goals". This is pivotal in promoting high cognitive functioning. Research has shown that most parent interventions have focused on the behaviour of parents, such as how to respond to your child, discipline, and nurturing to improve social, emotional, language and cognitive skills of children. Parents have been encouraged to read more books with their children to improve vocabulary and literacy skills (Suskind et al., 2015). For instance, Bloch (2014), a literacy specialist, claims that reading out aloud with children of all ages is an important activity. She goes on to say that from the perspective of literacy development, reading aloud with children is crucial because "the more rich, metaphorical story-language children hear, the more chance they have to understand what they read when they are on their learning-to-read journeys. This is because when anyone reads, or learns to read, they

always bring the knowledge and information already in their mind to make their own personal meaning from the print; the richer their experiences, the more they understand" (Bloch, 2014, n.p.). To add to this, engaging in this activity fully by exploring story plots, details, characters and other complexities helps a child to develop other essential skills like problem solving, analytical skills and how to empathise (Bloch, 2014).

The research findings from the parent interviews conducted in this research project showed that 78% of the parents interviewed do not have books at home and do not read with their children. The remaining 22% read to their children either every night or three to five times a week. It is evident from the sampled parents that that learning opportunities are left to the ECD centre. What cannot be determined for all respondents is whether or not this is due to a lack of knowledge about the importance of reading, or whether it is a choice made in the face of competing priorities.

Based on similar research outcomes, Suskind et al. (2015) developed an intervention directed at parents to improve the language environment at home during a child's early childhood in terms of the number of words a child hears (quantitative) and the quality of interaction with adults and child-led interactions. The intervention was driven by the primary objective of increasing parental knowledge about the language environment at home, how it relates to language development, and their role in this to help improve child outcomes (Suskind et al., 2015). The view is that increasing parent knowledge and understanding has a stronger effect on long term behavioural change (Suskind et al., 2015). Findings suggest that, in the short term, it is possible to increase parental knowledge and behaviour. However, behavioural changes do not last as long as knowledge, which suggests that another supportive structure has to be considered or coupled with such interventions to sustain behavioural change (Suskind et al., 2015).

When, in the research findings reported here, parents were asked about their role in their child's development, only one parent said they do not see themselves as a role player because learning occurs at an ECD centre. Although almost all parents recognise that they do have a part to play in child development during the early years, the research findings suggest that there is a gap between this recognition and what happens in the home. One response from a parent was that

her role was to get her child to the ECD centre. Another parent could not explain her role but did recognise she had a role to play. In majority were 44% of the parents who suggested that their role is to ask their children about the lessons they learnt at school at the end of each day. Other parents said playing and doing household chores with their children was important, and one parent said reading stories at night formed part of their role in development.

There is research evidence to suggest that a parent's knowledge and understanding of ECD has an impact on general child rearing practice, such as the pace at which a child acquires language skills (Suskind et al., 2015). This knowledge influences how much a parent invests in their parenting skills, which leads to more accurate interpretations of child behaviours and affects the methodology of play adopted by the parent. Exposure to developmental stages allows the parent to evolve – types of play, new activities, parental responses – in line with these milestones (Suskind et al., 2015). Paxson and Schady (2007) also support the view that the quality of parenting, alongside the parental education level, affects the attainment of cognitive skills early childhood. Moreover, they conclude that the health of the child, alongside quality of parenting, influences cognitive development.

"An economically advantaged child exposed to low-quality parenting is more disadvantaged than an economically disadvantaged child exposed to high-quality parenting" (Heckman, 2011, p.33). In this instance Heckman (2011) argues that income is not a good enough measure for the quality of parenting that a child receives, since good parenting is a more important variable than financial status. Moreover, poor parenting can be offset by giving children access to learning to acquire appropriate (desirable) cognitive, social, emotional and personality skills from an early age. These personality traits are the foundation of the social cognitive theory and are associated with a person's motivation, discipline and self-control as well as their self-esteem. Along with cognitive ability, personality traits have been identified as strong predictors of success and positive economic outcomes (Heckman, 2011). Drawing on his research on high school students, Heckman (2011) argues that students who did not graduate did not do so because of cognitive deficiencies, but rather were lacking in some personality trait or characteristic. He (Heckman, 2011) adds that investing resources from Grade 2 (the second grade) will not yield the most fruitful results because from this point onwards the effect, in a positive or negative direction, is minimal. This is because the most important disparities are created before formal education (Heckman, 2011). Therefore, Heckman (2011) argues that in

order to build a more productive society it is important to invest in the 0 – 5 age group through early childhood education and through creating positive family environments.

Likewise, and based on North American research, traditional measures like classroom size and teacher salary have little effect on educational gaps; instead it is the family environment that has the most effect (Heckman, 2011). Firstly, this suggests that structural elements of quality (that are more easily measured), which to some extent were better in funded ECD centres, are less important process elements. Moreover, monitoring and evaluation based on these types of measures does not give us a full picture. Secondly, if it is true that the family environment is most important in bridging educational gaps this would suggest that any efforts directed towards ECD need to involve parents and the family as key stakeholders.

There is research evidence to suggest that a parent's knowledge and understanding of ECD has an impact on general child rearing practice, such as the pace at which a child acquires language skills (Suskind et al., 2015). This knowledge influences how much a parent invests in their parenting skills, which leads to more accurate interpretations of child behaviours and affects the methodology of play adopted by the parent. Exposure to developmental stages allows parents to evolve their responses through types of play and new activities in line with these milestones (Suskind et al., 2015). Paxson and Schady (2007) also support the view that the quality of parenting, alongside parental education level, affects cognitive skills development. Moreover, they conclude that the health of the child, alongside quality of parenting, influences cognitive development.

An aspect of data collection that limited the number of teachers and parents who were interviewed as part of the research reported here is the timing of the data collection process. Data collection, starting with testing the appropriateness, construction and usability of the questions, began in September. Experience showed that attendance reduces significantly in the last week before any holiday. During the data collection process in Msinga, on more than one occasion we arrived at a centre and it was completely closed, or the regular teachers were not all there, or there were five to ten children instead of forty. Moreover, unlike private centres that run their programs into December, community based centres in KZN close in early November. This is because families and household tend to follow the timetable of their older

children in primary and high schools that close earlier, meaning that there is someone at home who can take care of the children during the day.

6.4 Research in Action

Vivid experiences in the field remain in your conscience either because they are positive or negative. One of these impressions is that teachers can really make a difference. In Msinga, in an unfunded centre, an interview with a highly trained and experienced teacher brought a new range of answers as well as observed evidence. She was able to talk about children's emotional and social skills and showed records of children's development. She explained that it is difficult to work with some parents because they do not take on board her advice if things need to change in the home, or if any additional ECD work needs to happen at home.

Another interaction with a grandparent stood out during the data collection as being particularly positive. This demonstrated close parent and centre relations, which were evident in how the main teacher spoke of the grandparent. It was also evident in how engaged the grandparent was with the centre. She knew the programme and the children and volunteered as much as possible. In addition, she was involved in brainstorming activities with the centre on how to raise funds, exploring making baked good and selling them in a container just outside the creche. In some cases, although on paper a centre should not be performing well, we were surprised at what centres could do with limited resources and formal skills. One centre in Izingolweni was run by a teacher and supporting staff that did not have formal ECD education, did not receive child subsidies from the government, did not have a safe pit toilet and had limited classroom materials. In spite of this, children's attendance was high, and children were interactive in the programme activities that were observed.

An additional point to take into account is the potential impact of research design and data collection methodology. Perhaps the most apparent limiting factor in the observation of ECD centre practice is the time spent at each centre to observe the program. The duration of each visit has potential implications on the reliability of the results. For instance, observation over an entire day as opposed to 1 to 2 hours may have yielded different results. In future research, the observation would need to be longer and repeated, in order to gauge practice over time

rather than in one single snapshot. Teachers also highlighted that child attendance tends to be higher at the start of the month when parents have more money (either because they receive the social grant at the time, or parents have more income from other sources, i.e. work). This is more prevalent in unfunded centres than funded ones which supports arguments raised previously concerning money being a barrier to accessing vital early childhood services. However, this is not access in terms of crèche fees, but rather that the costs involved for parents when a centre doesn't provide all meals. In addition to this, seasonal attendance, particularly for unfunded centres, may affect how the programme runs on a particular day. In Msinga for example, a teacher explained that low attendance on the day of the observation meant that the usual programme would not be observed as normal. She attributed the low attendance to the fact that it was the last week of the third term.

Another potential limitation to this study is the sample size. Although a good number of insights were drawn from the centres profiled and from the interviews, particularly in terms of the profiles, increasing the breadth of the study would have allowed for generalisations to be made about this population group. In terms of the interviews, perhaps increasing the depth rather than the breadth would have provided more knowledge to begin to delve deeper into understanding people's motivations and behaviour.

7. RESEARCH CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

7.1 Early Childhood Development: Looking to the Future

This – final – chapter brings together the outcomes of this research in two complementary ways. Firstly, following from the initial research objectives and main research question that asks how the quality of ECD that is delivered through community-based ECD centres can be improved either through the use of public funding or other funding sources, the chapter outlines the basis for an effective Monitoring and Evaluation (M&E) system for early childhood development (ECD). This, it is suggested, should be used to guide future investments in ECD, whether by state or private providers, in order to maximize benefits for children and their parents. Making sound funding decisions based on M&E output and responding to these outputs and direct needs of the ECD centres in partnership with the custodians of ECD in communities enables the improvement of the quality ECD. Secondly, and following naturally from the prototype for an M&E system, the chapter outlines directions for future research. The principle that underlies this chapter, and indeed this entire investigation, is that appropriate and effective ECD is central to reducing inequality and alleviating poverty.

7.2 Principles for Effective Monitoring and Evaluation

Evaluative activities are undertaken against the assumption that certain tasks – inputs – result in specified outputs and outcomes in the long run. For this reason, monitoring is crucial for establishing whether resources are being utilised as intended and whether activities and tasks are being carried out as planned. As explained previously, evaluation is performed to improve interventions and the program theory. It is also performed to determine whether an intervention or an investment has yielded enough returns to justify continued or even further investment. Pivotal to both monitoring and evaluation is accurate and up-to-date data.

Research has shown that the time and skills required of social workers to perform meaningful and in-depth M&E is substantial because it would include observations and assessments of classroom practice. Furthermore, do social workers in the Department of Social Development have the expertise or enough time and resources to carry out such M&E? Should they perform such M&E? Literature suggests that evaluation is a complex and time-consuming activity, and is more valuable when performed by trained professionals who understand the early childhood

development (ECD) environment and classroom practice. Social workers are neither education nor evaluation specialists. Additionally, social workers in South Africa are dealing with increased workloads as a result of increased paper work, a higher number of children in need of foster care, other cases of child protection, and newly emerging social issues (Disability Gauteng, 2017). Considering this, should social workers in South Africa even perform M&E?

At the onset of this research paper, largely influenced by underlining assumptions about community-based ECD centres, the purpose was to engage with the target study population to unearth evidence that would support the view that outcomes of investment decisions into rural or low-income communities need to be interrogated further and more deeply. Some expectations regarding the research outcomes included the extent to which ECD centres could function as a learning facility and as well as the extent to which unfunded centres could mobilise community resources to fulfil their needs and fill funding gaps. In many cases expectations and reality did not match. Some surprises in the research outcomes included the general expectation regarding teacher training which was that the number of teachers trained in ECD would likely be substantially lower in centres that do not receive subsidies from the department of social development than in ECD centres that do receive these subsidies. However, the difference was 10%. Additionally, the only teacher who obtained a degree in ECD was from an unfunded centre. Another significant surprise was the extent to which many of the parents interviewed relied on the ECD centre to provide all social, emotional and cognitive needs for their children. Perhaps one of the most alarming research finding was that a considerable number of centres function without basic municipal services. For instance, just over 50% of the centres profiled did not have electricity in their ECD centres. Surprisingly, in establishments created for children only 62% of the survey sample had toilets that were suitable for children. Furthermore, even funded centres did not achieve 100% for this assessment. Also, only 30% of the centres had a tap on the property. Lastly, a teacher's qualification and training is argued to be an important measure of ECD quality (Fuller et.al., 1999; Ishimine & Tayler, 2014; Warash et al., 2005). However, the research findings show that 32% of the teachers did not have a matriculation qualification.

A major objective in undertaking this research was to build a monitoring and evaluation framework to help decision makers consider quality improvements in elementary and latent

aspects of centre-based ECD provision in low income communities. The following indicators have been identified as useful and practical measures to guide M&E:

- Teacher training and experience,
- Elementary factors that are easily measured which include safety, hygiene practice; staff ratio, child attendance, resource availability and learning opportunities created;
- Latent factors including classroom practice, relationships and child outcomes; and, finally,
- Parental ECD knowledge which can be translated into practice at home, and parental involvement in the ECD centre.

The first set of indicators surround the suitability of staff entrusted to guide children through the learning process. Teacher training and experience provides an indication regarding the capacity of the staff as well as the potential for further skills development and ability to learn. Although training is an important measure, the results obtained from community-based ECD centres suggest that training does not always guarantee i) a good ECD programme, ii) that children will feel safe, iii) that children will be encouraged to explore, or iv) that children will receive sufficient stimulation and opportunities to learn. This suggests that training alone is not a sufficient measure for evaluation. Additionally, experience within the ECD sector can act as a substitute for formal qualifications. Studies also show that support in the form of ongoing coaching and mentoring for teachers can substitute formal qualifications, and can go further in ensuring improved classroom practice and child outcomes. For example, in a centre where the supervisor (who has a dual role of main teacher) was asked whether or not they keep records of children's development. She responded, saying:

"Asiwa-keep-phi ama records. Umthetho wethu senza kanje; siyafunda, into obekade ufundisa ngayo uhamba uyoyi submit-tha eskoleni because senza u-level 4. So uqoqa wonke lom'sebenzi ebekade bekwenzela wona … yingakho kusengathi asinawo umsebenzi. Ukhona omcanyane lo ok'bhala."

In summary, the supervisor explains that they do not keep records of development for each child. Instead, since she is currently completing her NQF level 4 in early childhood development, children's work from classroom lessons is gathered and submitted to the training institute. She goes on to suggest that this is the reason why none of the children's work is on display in the ECD centre.

"Imsebenzi yabo abayenzayo iyona engiyi report-thayo, ngik'beka ema file-lini wabo, imsebenzi yabo nje ngiyay'beka."

Another teacher in a different ECD centre explains that she keeps the children's work in their individual files, and that reporting to parents is based on these files that are maintained.

The evidence from the field suggests that training qualifications and experience may not be enough to guarantee that an ECD centre runs a quality programme. Additionally, since ECD is an evolving practice, it requires continuous training to keep abreast of new developments in the field. Therefore, beyond proof of teacher training and experience in terms of formal qualifications, certificates and the number of years working in an ECD centre, it is important to assess classroom practice. Objective questionnaires can be also used to test ECD knowledge and interviews to deepen responses. Furthermore, observations can be used to test the integrity of responses given in questionnaires and interviews.

Indicators for elementary factors can help evaluators to begin building an idea of the quality of an ECD centre's service. Factors that are easily measured, such as staff ratios, resources, safety and child attendance are associated with monitoring practice. In other words, these factors are monitored to ensure the right structures are in place to enable the desired child outcomes. They determine whether an ECD centre meets health and safety requirements, whether it has sufficient resources for the number of children admitted or any resources at all, and whether staff ratios meet the standards set by national policy in the Children's Act. These elementary factors also provide a basis for evaluating the quality of service provision. Moreover, they can be used for investment decisions by government and, or other donors. For example, child attendance tells us something about structural quality as well as process quality. On the one hand, sporadic child attendance, particularly in unfunded centres, may indicate parents' financial status and resulting parental priorities. On the other hand, according to South African literature, irregular child attendance dampens the impact of community-based ECD interventions on child outcomes in grade R and in primary schools (Dawes, Biersteker, & Hendricks, 2012; Kotzé, 2015; Martinez et al., 2012).

Research findings from this project, and evidence from other South African studies (such as Department of Social Development, 2014; Ngwaru, 2012; Fuller et al.,1999), suggest that there is a need for public funding to improve infrastructural deficiencies and to increase stimulation material for children in order for ECD centres to create learning opportunities for children. Although funded ECD centres exhibited better structural quality overall, the differences in structural quality are not as pronounced or as consistent as might have been expected. However, if M&E sets out to ensure continuous improvements in child outcomes, resources and infrastructure and general functioning of the centre (in process and structural quality), then the research findings demonstrate some weakness in the system. For instance, the Department of Social Development carries out M&E, which is arguably constrained to only monitoring the centres because of large volumes of workload that social workers must handle. According to Gauteng Disability (2015), each social worker handles approximately 120 caseloads which means that there are significant time constraints. Moreover, social workers have limited expertise on ECD in general, ECD programmes, and how to evaluate these programmes. However, government funds ought to be evaluated against intended output and outcomes.

Another way in which elementary factors can guide investment decisions is in the way in which structural features and the number of children that attend a centre can point to a centre's capacity to grow. For instance, if a centre reaches a large number of children but operates in a small space, an investor (government or donor) can choose to extend the centre by building an additional classroom. Alternatively, if a centre already has a good structure, with a significant number of children attending but has teachers with limited or no qualifications, an investor might choose to provide training for these teachers because it will impact many children.

To move beyond elementary factors is the starting of intentionally engaging with the notion impact. The quality of an ECD centre is also affected by latent factors which are not as easily measured as elementary factors, and generally involve more time, more resources and more labour to measure and evaluate. Essentially, ECD interventions aim to improve child outcomes (social, emotional and cognitive skills). In the ECD environment these interventions are influenced by classroom practice and opportunities for learning that are created by teachers, as well as the relationships between teacher and children, and relationships between children.

Naturally, the availability of resources in the centre impacts the quality of the programme and ultimately the child outcomes. For this reason, elementary factors such as learning and playing material, the ratio of teachers to children and the environment that the children are in daily are monitored as an indication of quality. The most powerful tool for measuring latent factors is observation. Observations can verify any interview responses given by teachers on their practice in the classroom. Tools such as the Environment Rating Scale is an instrument that is used internationally to assess numerous classroom environment factors including the teacher's classroom practice and relationships between teachers and children, and hygiene practice. Locally relevant scales based on this type of assessment can be used to assess quality in an ECD centre. Finally, assessment of child outcomes can be carried out by using a tool based on the National Early Learning and Development Standards as well as focusing on assessing development domains – social, emotional, cognitive, physical.

The final component developing an effective M&E system is to consider the context within which these ECD centres operate. Building an effective monitoring and evaluation system within a community setting cannot be accomplished without including the community. Literature suggests that interventions aimed at improving ECD practice in rural communities tend to have more longevity when they involve parents and the wider community, resulting in better child outcomes (Dawes, Biersteker, & Hendricks, 2012; Ngwaru, 2012); Engle et al., 2011). In other words, since community based ECD centres are established because of a community need and depend heavily on community members to ensure longevity, any long-term solutions should consider the wider community setting. Consequently, the link between the ECD centre and parents is important, particularly for parents who have a limited understanding of what ECD entails and what it means for their children. For example, some parents' responses to the question about the type of play activities they engage in with their children included:

"Yes, games on the phone"

"No" – Parent indicates that she does not play with her child (a response given by more than one parent.

Teachers that were interviewed for this study suggested that a strengthened relationship between the centre and parents would be beneficial for centres in terms of improved operations.

Additionally, many parents did not know what constitutes a daily program. Relations are good because parents demonstrated a willingness to help in the interview responses.

Parental involvement may be measured and evaluated based on the following indicators: firstly, frequent and timely school fee payment is a parental responsibility. The assumption here is that individuals are usually willing to invest financially in activities that they perceive as valuable. Secondly, attendance at parent-teacher meetings and participation in other meetings held by the ECD centres can be an indication of parental knowledge and understanding of the importance of ECD, as well as the parental role in ensuring that their children obtain good care and education. Lastly, and arguably the most impactful, are the learning opportunities created in the home. However, activities in the home are difficult to monitor and assess unless parents are involved in a parenting programme or another intervention that focuses on ECD. Parents expressed some of their beliefs in the following manner: (translated scripts)

"Yes, when she comes from school (creche) I ask her what she has learnt and we talk a lot. I think literacy takes place there."

"The role of learning is in the ECD centre, and my child holds lessons from the teacher in high regard. My child reports what they learnt in school and will sing new songs for me."

7.3 Priorities for Future Research

The results of the research reported here have revealed that the ECD centre is the place in which an intersection of various dimensions and circumstances converge. The question of raising the quality of ECD services in rural communities and improving adult outcomes for future generations of the most vulnerable population groups is part of the larger challenge of breaking the perpetual cycle of poverty – the poverty trap.

The World Bank (2009) suggests that the poverty trap is a phenomenon that can be experienced at a country level, regional level and household level. A poverty trap can be described as situation when an individual or population group find themselves in generational cycles of poverty (World Bank, 2009). This poverty trap usually occurs in developing countries or countries that are under developed. The World Bank (2009) also describes a situation in which social and economic characteristics of a person's geographic location determines whether or

not, or how easily a person can escape a poverty trap. For instance, the argument is that in rural areas, which are typically poorer than urban areas, it might be more difficult for a family to escape a poverty trap. This is known as a geographic poverty trap. In addition, there are macroeconomic factors, such as high inequality rates, which make it more difficult for South Africans to overcome poverty. For example, high inequality diminishes the impact of any given rate of growth, and conversely, low inequality rate produces better outcomes for a given growth rate. In other words, any economic growth in a country with high inequality has a more difficult task to improve individual and household incomes, savings and investment because this growth takes a long time to reach the poorest (World Bank, 2009). Moreover, in order to have the ability to generate any further wealth, an individual, household or country requires a certain threshold level of wealth (World Health Organisation, 2009). Additionally, and in line with development in the early years, if large portions of the population continue to receive education and care that does not allow children to reach their full potential, then future production and economic growth will be hindered (World Bank, 2009).

The findings from the research reported here have revealed the dynamics at play within a community-based ECD centre and have provided a glimpse into parental views of ECD and their role in ensuring optimal social, economic and cognitive outcomes of children. The findings also capture some of the experiences of teachers and children in ECD centres. With this in mind there are a number of directions that could be taken from this point onwards. Research suggests that the inherent benefits of community-based organisations (CBOs) are the key to unlocking opportunities and insights that will direct and improve intended intervention outcomes. Therefore, a key question for further research is how to improve ECD centres from the inside out as opposed to the outside in. Implying that, as opposed to offering a blanket solution to solving the issue of quality service provision in the ECD centre, an alternate approach is to invest time in understanding community dynamics, the context of the ECD centre and tailoring solutions to support and enable improvement in quality. This further research can encompass two areas: extraction of indigenous knowledge, and needs identification. Building an understanding of how communities function is integral to developing appropriate interventions.

Secondly, an important focus for future research will be to investigate ways in which to support and equip parents to be agents and catalysts for achieving quality in ECD. The task here is to research how to effectively incorporate parents in the ECD process, to research how to motivate

parents in such a way that it encourages lasting behaviour change, and to investigate ways of raising the profile of ECD in rural communities, as well as increasing parents' demand for quality ECD services.

Thirdly, for effective evaluation, we need a clear definition of quality and an understanding of the context in which ECD operates, in line with the realities of South African children. Moreover, if one of the objectives of monitoring and evaluation is to improve interventions and practice, this calls for collaboration and agreement between those who practice and those who evaluate. In this way, both parties - but teachers in particular - will recognise where and how they can improve.

Since the ultimate reason underpinning increased investment is to improve child outcomes (and later on, adult outcomes), there is room to draw on international trends and practice of measuring child outcomes and readiness for school. As with quality, a key component of measuring readiness for school is defining, either nationally or at a provincial level, what is meant by 'readiness' and weighing the relative importance of physical, social, emotional and cognitive competence in children. Research evidence suggests that this is best accomplished by ECD teachers who are fully trained in early childhood development, but also by other trained professionals who understand developmental milestones in early childhood. If we are looking to communities to build capacity and improve from within and give them a sense of agency and control then it stands to reason that providing the right tool and support is what is most suitable to allow for sustainable adoption and change.

Following from this, the framework set out here has briefly explored the evaluation of child outcomes as the primary objective in developing a monitoring and evaluation framework for with ECD centres. Given this, an important area of future research will be to work on assessing and evaluating the product of ECD centres. The Early Learning Outcomes Measure (ELOM) is an example of research and tool development based on South African standards and curriculum framework. This measure aims to "provide all types of early learning programmes with a psychometrically valid instrument for the assessment of children from all socio-economic backgrounds against the early learning standards that they are expected to reach prior to Grade R, and which will thereby provide evidence for the performance of early learning programmes"

(Dawes, Biersteker, Girdwood, Snelling, & Tredoux, 2016) In other words, this tool is directed towards assessing programmes and classroom practice as opposed to being an assessment tool for children's readiness for school.

7.4 ECD: Key to Overcoming Poverty and Inequality

Overall, the evidence presented here describes numerous socioeconomic and environmental factors that play a part in child development, outcomes and future success: parental knowledge, home environment, child and adult relationships, motivation, implied financial status and infrastructure. The complex nature of these interactions suggests that the solution to the quality issue and education gap will not be simple. Instead it requires extrication of each influencing factor and deeper examination and iteration to build interventions that produce long term positive effects. The nature of this complexity is demonstrated in the many education reforms in South Africa that have yielded no better results. Poor quality education has remained a constant characteristic of poor communities (Van de Berg, 2013).

Investment in a child's early years and improving the quality of ECD service has the potential to change future economies, to raise equity and improve equality (Lake, 2011; Heckman, 2011). One of the challenges facing South Africa is that investment in education has increased considerably since 1994; however, it has failed to yield the intended results of improving the quality of education for all and reducing the spill-over effects associated with improved education and literacy levels. The South African government "recognises early childhood development as a fundamental and universal human right to which all young children are equally entitled without discrimination" (RSA, 2015, p.19). Provision of ECD services is a public good and is an essential equaliser, based on the premise that the state of a country's ECD gives an indication for future economic success and well-being (Irwin, Siddiqi, & Hertzman, 2007). Quality ECD is pivotal for South Africa in its journey towards overcoming poverty and inequality in the country (RSA, 2015).

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9. APPENDICES

9.1 Appendix 1: Organisational Profile

No.	Question	Response/Option
	Setting	
1.	No of children	☐
2.	Age groups	0 - 2 ☐ 3 - 4 ☐ 5+ ☐
4.	No of teachers	☐
5.	No of child minders	☐
6.	No of volunteers	☐
7.	No of classrooms	☐
8.	Supervisor/Principal	Y/N? ☐
9.	Reading/Book/Quiet Corner	Y/N? ☐
10.	Children's work on display	Y/N? ☐
11.	Sick bay	Y/N? ☐
12.	Food provided	Y/N? ☐
13.	Separate kitchen	Y/N? ☐
14.	Jungle Gym	Y/N? ☐

Additional comments on utilisation……
……
……
……

	Infrastructure	
15.	Type of building	Mud ☐ Brick ☐ Prefab ☐ Container ☐ Other ☐
16.	Condition of building	Very Poor ☐ Poor ☐ Fair ☐ Good ☐ Very Good ☐
17.	Size of building	☐ /m2
18.	Toilet	None ☐ Pit toilet ☐ VIP ☐ Flush ☐ Other ☐
19.	Lid on toilet	Y/N? ☐
20.	Are there kiddies size toilets?	Y/N? ☐
21.	Is there a separate toilet for adults?	Y/N? ☐
22.	Handwashing facility	Toilet sink ☐ Tippy tap ☐ Basin ☐ Other, specify ☐
23.	Water	Running water ☐ Tap on property ☐ Jojo Tank ☐ Walking distance ☐
24.	Electricity on site	Y/N? ☐
	Resources	
25.	Books	Y/N? ☐
26.	Building blocks/Puzzles	Y/N? ☐
27.	Toy Spades/Shovels	Y/N? ☐

28. Other toys (Specify)

……

……

……

29. Colouring books/paper/pens/crayons Y/N? ☐

30. Arts & crafts/paint/playdough Y/N? ☐

31. Mattresses for nap time? Y/N? ☐

Teacher Training

32. No. of teachers with a matric certicate ☐

33. No. of teachers with a diploma/degree ☐

34. No. of teachers with ABET ☐

35. No. of teachers with some ECD training ☐

36. No. of teachers with formal ECD training ☐ eg. diploma, degree, or postgraduate certificate in early childhood

Administration

37. Creche fees per child per month Y/N? ☐ Specify amount… ☐

38. Average monthly income from fees Min ☐ Max ☐

39. Teacher remuneration per month Min ☐ Max ☐

40. Receives government funding Y/N? ☐ If yes, since what year? ☐

41. Receives other donor funding Y/N? ☐

9.2 Appendix 2: Teacher Interview

1. When should children wash their hands?
   ……
   ……
   ……
   ……

2. Does your centre follow a daily program? If yes, what areas of development is the daily program centred around?
   ……
   ……
   ……
   ……

3. How much of the day is spent in play and in rest (nap time)?
   ……
   ……
   ……
   ……

4. Do you make use of Nal'bali stories and techniques? What are the techniques
   ……
   ……
   ……
   ……

5. What type of group activities do the children take part in? Explain.
   ……
   ……
   ……
   ……

6. Do you keep a record of children's growth and development?
   ……
   ……
   ……
   ……

7. Does your centre have a discipline policy? If yes, explain.
   ……
   ……
   ……
   ……

8. How would or do you deal with difficult child behaviour?
   ……
   ……
   ……
   ……

9. How does the ECD centre communicate with parents? (e.g. teacher-parent days/conferences?
   ……
   ……
   ……
   ……

10. How much involvement do parents currently have in the ECD program? Should they be more or less involved?
    ……
    ……
    ……
    ……

11. What areas of improvement would you identify for your centre?
    ……
    ……
    ……
    ……

12. Comment on ECD training you have received.
    ……
    ……
    ……
    ……

13. Have you identified any children with special needs? How do you cater to their needs?
    ……
    ……
    ……
    ……

14. If remuneration is low for ECD practitioners, what keeps you at the centre?
    ……
    ……
    ……
    ……

15. What made you choose to become an ECD practitioner over another job?
    ……
    ……
    ……
    ……

9.3 Appendix 3: Parent Interview

1. What do you believe is the purpose of an ECD centre? (encompassed; why an ECD centre? And at what age)

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……

2. What toys have you bought for your child or does your child have to play with at home?

……
……

3. Do you play with your children? If yes, what type of games do you play?

……
……
……..……..

4. Do you have any books at home?

……
……

5. Do you read with your child? If yes, how often?

……
……

6. What television shows do you watch with the family (adults and children)?

……
……....

7. What children's television shows or radio shows does your child watch/listen to?

……
……

8. What time does your child go to sleep on weekdays?

……

9. Do you pack a lunch for your child?

……

10. How do you decide what to include? (Based on response from Q9)

……
……

11. Do you see a role for yourself to play in your child's development (e.g. in cognitive and literacy)? Explain.

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……
……
……

12. What type of relationship exists between yourself and the ECD centre (teachers and management)?

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……
……

13. How did you decide which ECD centre to send your child to?

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……
……
……

14. Do you know what happens in the ECD centre? (i.e. the daily program)

……
……
……
……

15. Are you heavily involved in the ECD centre? If yes, why and how? If not, why not?

……
……
……
……

16. What is your opinion on the functioning of the ECD centre?

……
……
……
……

17. Can you identify any areas of improvement within the ECD centre?

……
……
……
……

9.4 Appendix 4: Observation Tool

No.	Question	Response/Option				
	Observe The Following					
1.	Overall daily program	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
2.	Child-teacher interactions	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
3.	Supervision during nap time	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
4.	Supervision during classroom activity	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
5.	Supervision during outdoor play	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
6.	Supervision during toilet trips	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
7.	Supervision during meal times	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
8.	Handwashing practice	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐
9.	Meal preparations in the kitchen	Very poor ☐	Poor ☐	Fair ☐	Good ☐	Very good ☐

10. Additional comments on observed activities.

……
……
……
……

9.4.1 Definition of Scores

Criteria for Obs.	Very Poor	Poor	Fair	Good	Very Good	N/A
1 Program	No pogram	Program (varied activities) exists on wall But does not observe it	Observe some of the program (varied activities), or Observe most of the program but program activities are lacking	Observe most of the program (varied activities) Easy transitions between items	Good (well rounded, stimulating) program Well run program Easy transition between items	
2 Interactions	None of the 6	1-2 of the 6	3 out of 6	4-5 out of 6	All 6	
3 Nap time	No supervision		Supervised sometimes		Superivised continuously	
4 Classroom	No supervision	Teacher distracted	Teacher present & teaching Too many kids or not enough resources	Teacher present & teaching All children included in class activity Sufficient resources	Teacher present & teaching All children included and active participation	
5 Outdoor	No supervision	Teacher distracted	Passive supervision	Active supervision	Active supervision & participation	
6 Toilet trips	No supervision	No supervision but kids sized toilets	No supervision but kids sized toilets & ensure hands are washed, or Supervised but pay no attention to handwashing	Supervised trips Ensure hands are washed	Supervised trips Ensure hands are washed & dried appropriately	

7 Meal times	No supervision	Supervised sometimes	Supervised all the time	Supervised, ensure hands washed before meal	Supervised, ensure hands washed before & after	
8 Handwashing	No attention to handwashing	Only washed before meals Or only after toilet	Wash hands before some meals sometimes after toilet trips	Wash hands before all meals and after all toilet trips	Wash hands before & after all meals and after toilet trips	
9 Meal preps	Meal preps not separated No dedicated staff to cook	Separate kitchen No dedicated staff to cook, or Dedicated staff but do not use separated kitchen	Separate kitchen but kids have access (i.e. no door/broken door) Dedicated cook	Dedicated cook Separate kitchen Good hygience practice	Dedicated cook Separate kitchen Good hygience practice meals according to daily program	

Teacher-Child interactions:

1. Supportive language
2. Manages class successfully
3. Teacher fully engaged
4. Children respect teacher and vice versa
5. Appropriate discipline
6. All children involved in activities